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ABSTRACT

Collected are presentations from the Invisible College Conference on Early Childhood Education and the Exceptional Child, convened for the purpose of sharing with administrators, program planners, and teachers current thinking of key leaders in intervention research, curriculum and materials development, personnel training, and program evaluation. The first section offers a rationale and historic perspective for early intervention, in one paper about the importance of early education and another on the educability of intelligence in young children. The identification of exceptional children is discussed in the second section which includes a paper on increasing the lead time for the preschool aged handicapped child, and a paper on the type of teacher who can effectively teach the exceptional young child. The third section considers program models and resource materials in papers on the following topics: implications of research with disadvantaged children, training of parents in the early education of the handicapped, an early childhood education center with a developmental approach, a child development/day care resources project, and planning and evaluation. Three papers on the training of personnel consider training in a day care system, a handbook for training facilitators, and the need for an integrated approach to training, respectively. In the final section on initiating and implementing change are discussed public involvement in early childhood education in Illinois and the psychology of planned change. (DB)

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the exceptional child's early years

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A report from the
invisible college conference
on early childhood education
and the exceptional child.

the exceptional child's early years

Merle B. Karnes
Conference Chairman

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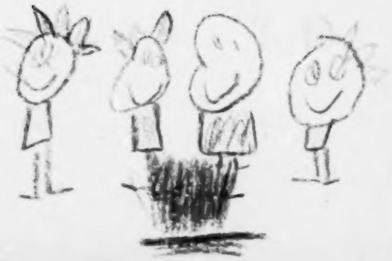

One of the best arguments for early programing is that it can eliminate many problems that may become entrenched if they persist into later years, thus reducing the necessity for placement in special classes or for special services. Preschool education can be a preventive program for many children who are prone to need special education. For others, preschool education can enable the handicapped to function at a higher level than is possible without early intervention.

— Merle B. Karnes

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preface

□ *NOT ALL LITTLE WAGONS ARE RED* is a product from the Invisible College Conference on Early Childhood Education and the Exceptional Child. It is an effort to share with administrators, program planners, and teachers concerned with the development of early childhood programs, the current thinking of key leaders in intervention research, curriculum and materials development, personnel training, and program evaluation.

The convening of an Invisible College in areas of exceptional child education is an approach used by the CEC Information Center for product development. The basic concept is as follows.

Each field of knowledge can be thought of as a pyramid. At the top of the pyramid there are 10 to 20 leaders in that field and they constitute the "Invisible College." These are the people who are on the "cutting edge" of new information and emerging procedures. All new knowledge in the field either emanates from or passes among them. They do not depend on the printed pages of professional journals to stay on top of things but develop their own internal grapevine system of communication. By "tapping into this grapevine," we should be able to reduce the gap between research results and implementation and reduce the time lag between innovation and practice.

Through telephone interviews with key leaders in the field, the area of early childhood emerged as one where significant, new knowledge was developing. Projects, programs, and innovators were identified. The next step was to plan and convene an Invisible College which would provide information for publication and distribution to the field.

Bettye M. Caldwell, James J. Gallagher, and Merle B. Karnes were invited to plan the conference. These three leaders met in a planning session and delineated the major topic areas and components. They decided that the most current knowledge on social evolution and consequences, program models, staff training, and management and evaluation should be shared with administrators and others involved in the implementation of programs for young exceptional children. Ten additional individuals with expertise in the target areas were identified and invited to participate in the Invisible College.

On January 20-21, 1972, the Invisible College met in a closed two day session in San Antonio, Texas. Each participant made a 20 to 30 minute presentation on his assigned topic. The total group served as discussants and reactors to each presentation.

This book is based on the basic presentations of the participants as represented by the individual chapters. Also included are pertinent observations and key elements of discussion sessions. At the request of the College, several participants provided revised material and supplementary information for this publication.

The content has been organized within five topic headings: *Rationale and Historical Perspective for Early Intervention; Identification of Children Needing Special Help; Program Models and Resource Materials; Training of Personnel;* and *Initiating and Implementing Change.* As the reader will readily observe, this book reflects the diversity of approaches in early childhood education and the College's agreement that this is the way it should be. As one participant observed at the conclusion of the conference, "There has to be diversity . . . we're not ready for one kind of model on anything, be it the educational program, the training, or the way you go about implementation. We need to keep all options open at the present time." Not all little wagons are red.

J. B. Jordan

forward

Since the midsixties we have had an unprecedented interest in early education. Development of educational programs for the young was founded on the premise that a major avenue for combating the ugly cycle of poverty was through education. For the first time the American conscience seemed to become acutely agitated that segments of our population—the American Indian, the Appalachian white, the Mexican-American, the Black, and the ghetto populations made up of various races and ethnic groups—were not fully participating in our affluent society. Thus, massive federal legislation was enacted to support programs for young children from low income families.

Another movement which has furthered early education and day care is that of women's liberation. Demands from this group to make provisions for their children while they are engaged in the world of work have been loud and clear. Closely allied with these demands are those from mothers who have been forced to join the job market because of divorce status. Since divorce is accelerating, and more mothers are forced to go to work, the need for child care has become an ever increasing problem. In addition, it is often necessary that both parents work to cope with the rising costs of living. At the same time, these parents want adequate care and stimulation for their young children when they are on the job. Some industries are beginning to combat absenteeism among mothers by providing day care for young children. This provision is likely to be more extensive in the years to come.

The efforts of Head Start, parent child centers, research and development centers, and the National Laboratory on Early Childhood, with its university centers, have provided information to the professional and lay public regarding the capacity of the young child to learn and regarding the impact of early learning experiences on the full development of the child's potentials. Attention has been directed to helping the child develop a positive self-concept, motivation to learn, adequate social skills, emotional stability, and physical well being. Other important concerns have been the determination of the critical stages for the presentation of learnings, the important content to be learned, the most effective strategies for teaching the child, the effectiveness of various educational delivery systems, the stability of learning, measurement or evaluation of relevant variables.

Head Start has stressed the importance of comprehensive services to young children. In the beginning, primarily because of the nature of the population served, prime importance was placed on health services. Later, as the program developed, the importance of parent involvement emerged as one of the goals of the program. No other program has brought to the foreground so forcibly the importance of parents taking a more active role in policy and decision making, especially in the area of the education of their young children. As parents have acquired new skills, they have involved themselves in the larger community in ways that have brought about a better way of life for themselves and their children. That parents can become more effective teachers of their children has been established by practice and research. While the results of Head Start have been somewhat disappointing, in retrospect it appears that the concept of early education through Head Start was an "oversell" and that too much was expected. Nevertheless, Head Start and other programs that have been developed, researched, and evaluated in the sixties have provided knowledge which can serve as guides in developing programs for young children from all socioeconomic levels and especially viable programs for young handicapped children.

A good example of recent developments in the education of young handicapped children is the "First Chance" programs. Some 90 model programs have been developed throughout the country for early education of the handicapped, with supporting funds coming from the Bureau of Education for the Handicapped. Of the 90 programs, 73 are currently demonstration programs, and 17 are outreach programs. The model programs are funded by BEH for a period of 3 years, during which time they are demonstration projects and coordinate their efforts with other agencies. At the end of the 3 year period the financing is taken over by another agency, and the program is continued. This agency is usually a public school. A small number of the projects have been continued for a fourth year to disseminate information, and these are referred to as outreach programs.

Recently Abts Associates, Cambridge, Massachusetts, was funded by the National Center for Educational Communications and the Division of Research of BEH of the federal government to disseminate information about exemplary projects the federal government has funded. Eight of the 18 exemplary programs selected were from the 90 model programs for the education of the handicapped. The eight selected are:

UNISTAPS/Model Preprimary Center for Hearing Impaired Children, 0-6, and their Families
St. Paul, Minnesota
Directed by Dr. Winifred N. Northcott

A Model Preschool Program for Mentally Retarded, Seriously Emotionally Disturbed, and Speech Impaired Handicapped Children in Southwest Arkansas
Magnolia, Arkansas
Directed by Miss Louise Phillips

A Home Approach to the Early Education of Multiply Handicapped Children in a Rural Area
Portage, Wisconsin
Directed by Dr. David Shearer

Developing Language and Perceptual Skills in Preschool and Early Education Periods
Mississippi State University
State College, Mississippi
Directed by Dr. Ernestine Rainey

A Model Preschool Center for Handicapped Children, with Professional Training, Research, and Service Components
Seattle, Washington
Directed by Alice H. Hayden

Preschool Project for Developmentally Handicapped Children
Chapel Hill, North Carolina
Directed by Mr. Donald E. Taylor

A Community Model for Developmental Therapy and Neighborhood Follow-Through
University of Georgia
Athens, Georgia
Directed by Dr. Mary M. Wood

Precise Early Education of Children with Handicaps (PEECH)
University of Illinois
Champaign, Illinois
Directed by Dr. Merle B. Karnes

The first of the model programs for the handicapped was initiated in the summer of 1969. All of these model programs include parent involvement as a major component. While special education has at least given lip service to the importance of parent involvement for many years, Head Start has undoubtedly had an influence on the breadth and degree of parent involvement demonstrated in the First Chance programs.

Earlier research based programs primarily used a summative evaluation design. The shortcomings of a pre/post research design has been pointed out repeatedly. In contrast, the above model programs have built in formative evaluation plans. Such ongoing evaluation has enabled developers to improve their programs as they are developing them.

Research based programs typically have failed to effectively disseminate new knowledge to the field. The model programs for the handicapped include well defined plans for transporting the program to the field. The funding reflects a commitment to this important activity.

The Bureau of Education for the Handicapped has encouraged innovative strategies for teaching the young handicapped child and for using a variety of systems for delivery of services to the young handicapped child. Obviously, innovators can and have taken advantage of the experiences gleaned in earlier studies with disadvantaged children.

One of the components felt to be critical in the determination of successful programs for the disadvantaged was inservice training of personnel. This component is a must in all model programs for the handicapped. Inservice training is important for all professional personnel and is especially important for paraprofessional staff.

A recent development has been to make mandatory inclusions of handicapped children in Head Start programs. Prior to this provision, handicapped children were not usually admitted to the program. This move is especially noteworthy since handicapped children need and can profit from comprehensive services at an early age more than any other group of children.

Although federal funding for early education is being drastically curtailed, there are some trends that kindle feelings of optimism. States are increasingly lowering the age requirements at which handicapped children receive services. Thirty-three states now allow programs for handicapped children below age 6, with 13 permitting programs to children at birth.

In addition to state provisions through public schools for the education of the handicapped, some state mental health facilities are also taking more responsibility for the education of the young handicapped child.

Another definite trend is a noncategorical approach in educating the young handicapped child. While there is a general agreement that segregation of the handicapped is not a desirable practice, until public schools make educational provisions for all young children, integration with normal children of the same chronological age is a real problem. Lack of opportunities to enroll the handicapped with normal children in some respects defeats the noncategorical aspects of a program.

Another trend that appears to be emerging is that administrators of special education are beginning to reorder their priorities and allocate large proportions of the funds available to them to the identification of and early programing for young handicapped children. They are beginning to more fully recognize that the young years are the "payoff" years.

Special education, as is true of all education, is being held more and more accountable for programs. New programs that are developing, such as early education for handicapped children, will be expected to show results if support is to be obtained and maintained. Thus, ongoing evaluation is a must in order to produce the data necessary to convey the worth of a program.

There is a firm belief among those who have been involved in and are committed to early education of the handicapped that all handicapped children can function at a higher level if appropriate intervention is provided in the early years, preferably as early as infancy. Research data back up this point of view. Some handicapping conditions can be alleviated, other handicapping conditions can be overcome to a large extent, and still others can be helped to better compensate the child who can then make fuller use of his potentials even though he may continue to need special education in later years. Family involvement is a real plus for early identification and educational programing for the young handicapped child. There is no doubt that professionals from the various disciplines, as well as parents of the handicapped, are ready for a fuller commitment from federal, state, and local governments to help the young handicapped child develop to the fullest. The services needed require adequate funding. Continuous interpretation of the needs of young handicapped children through organized groups and individuals is essential to promote legislation that will provide the essential monetary support.

Merle B. Karnes
March, 1973

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The original art in this book is the work of Judith (age 3½), Alonzo Donelle (age 6), Marya (age 4), and Christopher (age 6). CEC staff members Alan Abeson, Fred Weintraub, and Brenda Tillman are the three young artists' parents. Mrs. Tillman is also Christopher's sister.

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NOT ALL LITTLE WAGONS ARE RED

the exceptional child's early years

I. rationale and historical perspective for early intervention

the importance of beginning early

bettye m. caldwell

In the opening presentation of the conference, Bettye M. Caldwell helped to "set the stage" by providing a brief historical perspective on early childhood and the exceptional child. Reflecting on her personal experiences, Dr. Caldwell identified both the past stages of development leading to current preschool services and the major areas of concern which require attention for future educational planning of the young child.

Key Ideas

- *Attitudes toward treatment of the handicapped evolved through three major periods: Forget and Hide, Screen and Segregate, and Identify and Help.*

- *Parents of retarded children have deep feelings about their children's isolation and their own isolation from other parents in society.*

- *Deprivation runs in clusters and the environment of the young handicapped child is, by definition, depriving.*

- *Concern with bettering the environment of the handicapped child produced a major stream of influence into the whole area of early childhood.*

A MOUNTING CONCERN FOR YOUNG CHILDREN

□ At the Washington University School of Medicine, I once directed a clinic for mentally retarded children where the chief activities were a preschool program primarily oriented toward speech stimulation and a parent education group or therapeutic program for parents. My most significant learning from that 2 year period was an awareness of the deep feelings that parents of retarded children have about the isolation of their children and their own isolation from the mainstream of parents in society.

From that experience at the clinic, I went head over heels into the exciting ideas about the importance of early experience. At first I was very much concerned with the mother child relationship—whether it was depriving or not and how it influenced the development of the children. But it didn't take too long before I began to broaden this interest and realize that there are important "input people" in the life of the young child in addition to the mother. There are systems of events which impinge on the life of the child and which have a great impact on how he develops.

HEAD START – A BREAKTHROUGH

□ All of this came to a very exciting climax, almost a volcanic explosion, in 1965 with the Head Start program. It was the first major public exposure to the ideas of early childhood education. Suddenly, there was much nationwide attention focused on the importance of early experience. To a great extent this came from our interest in the handicapped child, and I think that the influence of the handicapped on early childhood programs is important to remember. The major stream of influence into the whole area of early childhood came from our concern with bettering the environment of the handicapped child, particularly the mentally retarded child.

The major stream of influence came from concern with bettering the environment of the handicapped child, particularly the mentally retarded child.

In spite of its many problems and limitations, the advent of Head Start was a real breakthrough in many ways. First of all, it meant that for the first time an enormous number of young children came under public scrutiny and under screening procedures that possibly could identify and remediate problems at an early age. Second, the implicit strategy of early Head Start was to devise a program *that fits the children as they are found* and that institutes remedial procedures to correct whatever deficiencies they have, whether they are nutritional, experiential, or medical. Theoretically, *every* need of the child, not just those classified as educational, was to receive attention. In my opinion, Head Start was the sign of a really quantum step upward in our concern for young children, and in our concern for all children.

EVOLUTION OF ATTITUDES TOWARD SPECIAL CHILDREN

□ As I look back over my own experience, I can identify at least three major evolutionary periods that we have gone through in regard to handicapped children.

The first one was *Forget and Hide*—forget all about the handicapped child, don't bring him out, keep him in a closet. Often the parents would be told to put the handicapped child in an institution or send him to relatives in a faraway small town. The solution seemed to be to hide him and then continue life as though he didn't exist. I think the Kennedy Foundation and the Kennedy family played a very major role in helping to break down social stereotypes about the necessity of keeping handicapped children, particularly mentally handicapped children, out of the public view so that parents and siblings wouldn't be embarrassed.

Forget and Hide: forget all about the handicapped child.

SCREEN AND SEGREGATE

□ I entered the field in the 50's during the second phase which might be called *Screen and Segregate*. In this phase we identified the handicapped children, counseled the parents, encouraged them to accept the children and be more open, and worked to establish special programs for the children. My first experience in lobbying was in Jefferson City, Missouri, where we were trying to get classes for the educable and trainable mentally retarded. The children would be tested, labeled, separated into a special facility, and virtually isolated again. These special facilities would keep them out of everybody's hair, out of the hair and the irritation of not only the parents but also of the teachers who would say, "I'm not trained to teach children *like these*." This separate placement would also get them out of the way of the other children who would be supposedly "held back" by them, not who would have a chance to learn because of them. It seems to me that we stayed in that period for almost 20 years.

The children would be tested, labeled, separated into a special facility, and virtually isolated again.

IDENTIFY AND HELP

□ We might call our current stage *Identify and Help*. We have not abandoned concern with screening, with trying to find children who

need help. But we now try to make the search earlier in hopes of affording early remediation, or more accurately, secondary prevention. We are also now aware of the fact that we need to help not only the handicapped child and his family but also nonhandicapped children and their families. This to me represents another quantum step.

One of the things we have found in our work at Kramer School in Little Rock, Arkansas (Caldwell, 1972), which merely reinforces what others have noted over the years is that children from about age 7 and older need a great deal of help in accepting children with special needs. For example, one of the attitudes that is so pervasive in many children, ages 7 to 12, is that handicapped children should be isolated: "They're retards, they're queers, they're weirdos," or whatever term might be popular at any given time in a particular school. It is as though the previous phase of Screen and Segregate gets constantly reinforced by the attitudes of the other children in many cases.

One of the main contributions that early childhood education can make to the education of the handicapped is an attitude of openness and acceptance.

One of the main contributions that early childhood education can make to the education of the handicapped is an attitude of openness and acceptance. Little children are not, to use one of our Kramer School children's current terms, "cripple kickers." They are not so prone to isolate and segregate on the basis of any characteristic, whether it's the developmental level that a child has reached, his skin color, behavior patterns, or whatever. They have much more of the ability to accept one another than do older children and adults.

MAJOR CONCEPTUAL ISSUES IN EARLY CHILDHOOD

□ In highlighting this evolution of attitudes toward the handicapped, I also want to raise four questions regarding the role and importance of early childhood education.

Is early intervention beneficial to the handicapped child?

To a great extent, it is the observable value of early experience for the young handicapped child that has led to the generality of the whole hypothesis for nonhandicapped children.

First, in addition to our general rationale for early intervention, what do we know about the validity of this rationale with respect to the handicapped child? This is an important question to ask. Is the hypothesis about the early critical period one that is derivable only from work with the normal child, or can we point to its validity with the handicapped child? The answer to the question is clearly in the affirmative because, to a great extent, it is the observable value of early experience for the young handicapped child that has led to the generality of the whole hypothesis for nonhandicapped children.

If you take the data from the early Kirk (1958) study, the children who responded the most from the early enrichment program were the ones(a) for whom no organic basis could be found for their handicap, and (b) those for whom the environments were reportedly the most depriving. These generalizations might have been even firmer had Kirk and his associates had a more accurate measure of the extent of deprivation. We collected data on this subject in the

Syracuse Program (Caldwell & Richmond, 1968) when I was director there by looking at the response to enrichment in the first 2 years. There was a very high positive correlation between the extent of deprivation of the family from which the children came and the extent to which the children responded to the enrichment program. This has some very important implications for programs for young, handicapped children, particularly if we are concerned about such aspects as the inability to learn, difficulties in adjusting to social situations, and so on. It seems that we have clear evidence of the importance of beginning early.

We have clear evidence of the importance of beginning early.

What is the environment of the handicapped child?

A second question I would raise is: What are the characteristics of the handicapped child's environment? It is of necessity depriving. We know that deprivation runs in clusters. In other words, the child who is likely to have a slightly unfortunate genetic history will also most likely grow up in a family with economic need and where health and nutrition problems are rampant. It is never possible to parcel out neatly the effects of one kind of deprivation and compare the effects of that with the effects of another; rather, they interact collectively and produce a composite effect.

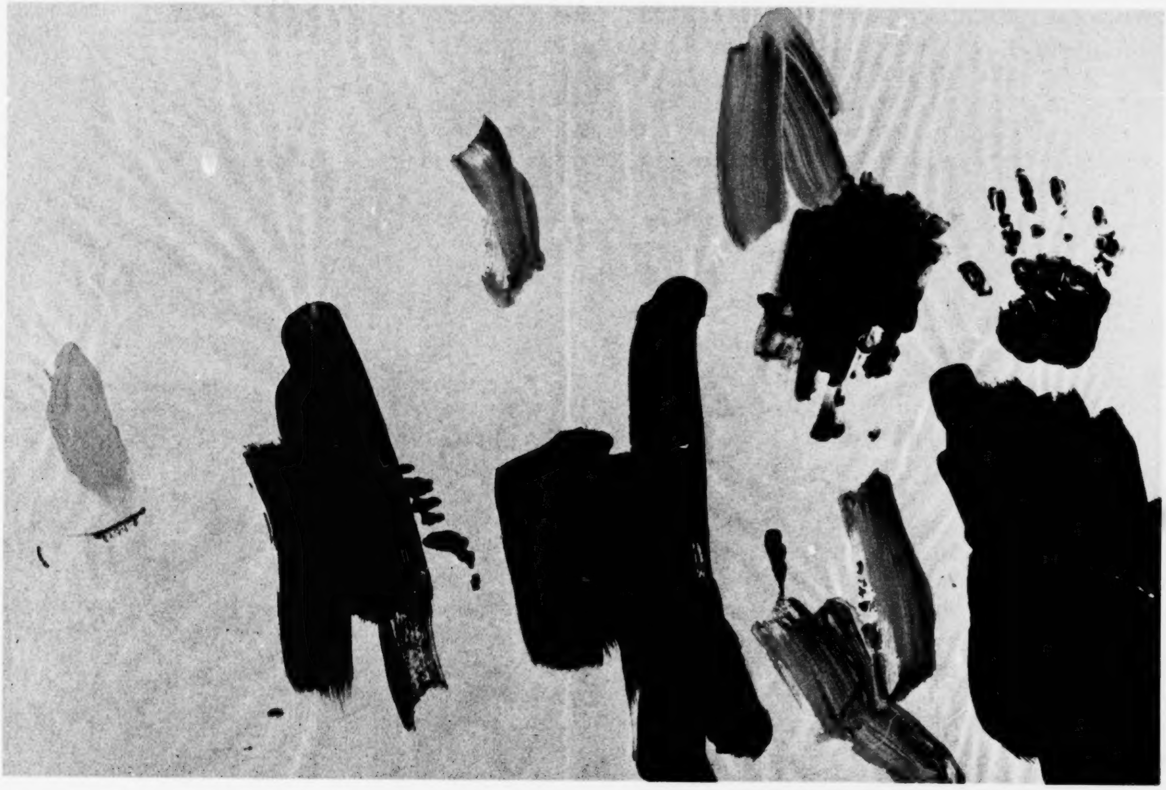
The environment of the young handicapped child is, by definition, depriving.

Regardless of the external surroundings, however, the environment of the young handicapped child is, by definition, depriving. If there is sensory deprivation, he cannot take in the best of the environments that are around him. If he has any kind of motor dysfunction, he cannot get up and move himself to find something better, or at least cannot move himself to a situation where the environment might make a better match with his own current developmental state. It is a clear situation of the old rule of the "haves" and the "have nots." The "have nots" continue to get less. It is very important, as we plan for any kind of environmental design or enrichment, to be aware of this point and to take it almost as a given when we talk about early programs for the handicapped. It is almost impossible to think of a handicapped child who does not have a deprived early environment.

Is the nature versus nurture issue important?

My third area of concern is that we do still need to pay a great deal of attention to the possible interaction between constitutional and experiential factors. Here again it seems that work with handicapped children can offer us much evidence which has application in a much broader context. One study that has clear relevance for this was done by Rudolph Schaffer (1965) who was very much concerned with the effects of maternal separation on the development of the child in cognitive and personal/social aspects. He observed children who has been hospitalized and thus separated from

We do still need to pay a great deal of attention to the possible interaction between constitutional and experiential factors.



their mothers for varying lengths of time. Although a few children were not negatively affected, he found an overall mean decrement in the measured Cattell scores at the time the children left the hospital. The means dropped so low that he could cite in his statistical report that there was a clear effect of the hospitalization and/or separation.

Then Schaffer looked at those children who didn't show a decrement and compared them to those who did. He compared their previous behaviors as infants in the hospital and he found that the children who showed the greatest decrement were described by the nurses and others who cared for them as infants as very inactive, actually underactive, during the time they were there. The children who continued to be active while they were in the hospital actually showed a slight rise as a consequence of their period of hospitalization. It was only 2 or 3 points and certainly wasn't significant, but Schaffer suggested that this kind of fact should make us more attuned to identify constitutional factors which might be indices of vulnerability to psychosocial deprivation. Activity level is obviously an aspect having some kind of constitutional basis. The active child can take it; the inactive child perhaps cannot. So again, when we think in terms of working with handicapped children, on whom we frequently have far more medical history and early developmental data, we do have an opportunity to have access to answers of this sort, answers which point to what the intricate relationship between these constitutional and experiential factors might be.

How do we assess the learning environment?

The fourth and final question I want to pose for your consideration is: What do we know about how to assess the learning environment? How much deprivation is really occurring? If we took this into consideration in administering psychological tests, we could use the Stanford-Binet, or any other test, as long as we always interpreted our results in terms of some equally sensitive measure of the child's environment. With this corrective procedure, no test would be penalizing the child. Rather, we could say, "We see that a particular pattern of development (such as an IQ of 85) has emerged in a child from a background unlikely to nourish development up to a normative level. Therefore, this child has done remarkably well in assimilating whatever advantages there might have been in his environment." Regardless of whether we throw away all tests as we know them or not, there must always be some means of assessment. One alternative to throwing away tests is to develop more sensitive measures of the environment in order to understand and interpret the data obtained on the tests. These points allow the two topics of our conference, early intervention in general and the handicapped child in particular, to be tied together in a meaningful way.

One alternative to throwing away tests is to develop more sensitive measures of the environment in order to understand and interpret the data obtained on the tests.

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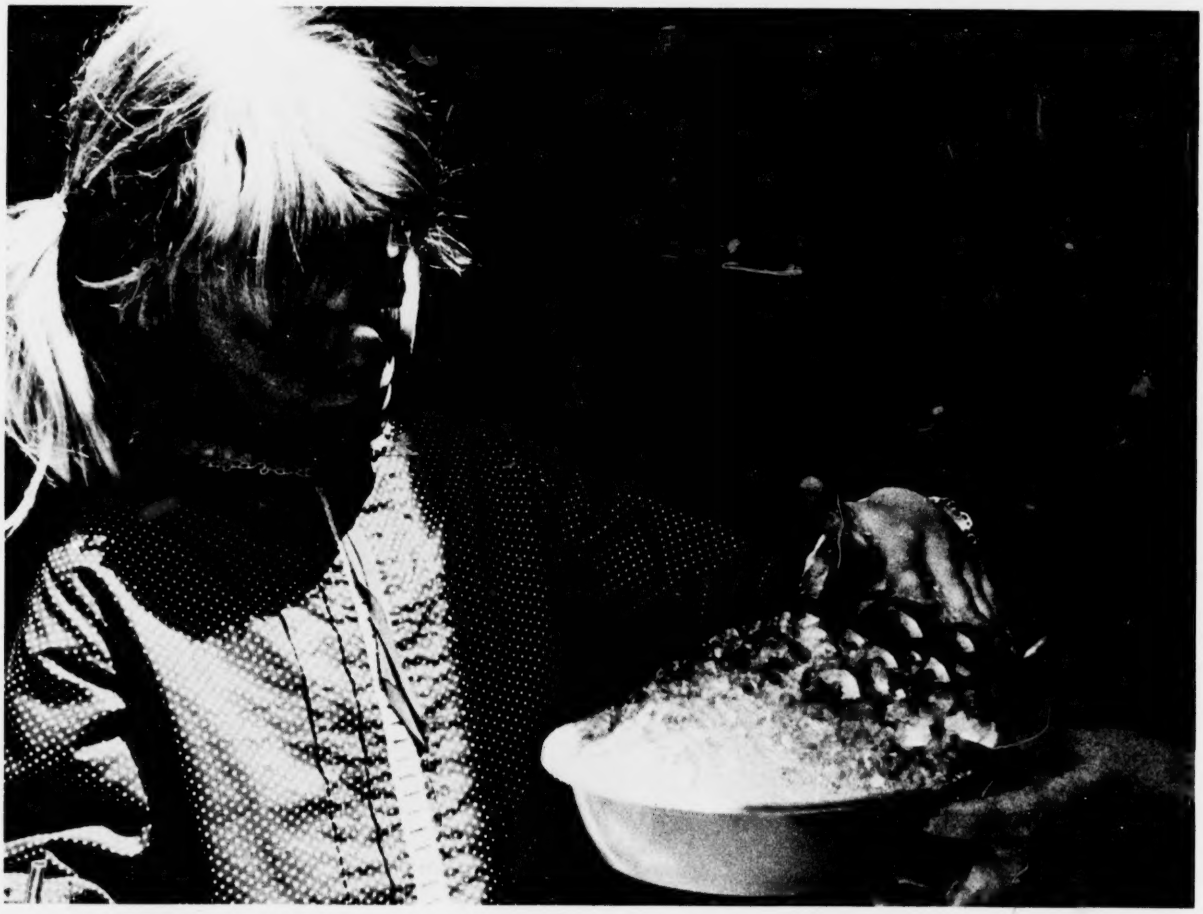
the educability of intelligence: start with young children

samuel a. kirk

To what extent can we develop intelligence? How important are the factors of heredity and environment on a child's cognitive development? Dr. Samuel A. Kirk raised the nature-nurture issue in regard to intelligence. A longtime advocate of the importance of environment in cognitive development, Dr. Kirk published a preschool study in 1958 on young mentally retarded children. This study stands today as a landmark contribution in early intervention research. His years of research and work with individual children provided the basis for his observations and remarks.



Key Ideas

- *Clinical cases can demonstrate the effect of environment on children.*

- *Labeling and measurement at the preschool level—the use of achievement tests and IQ ratios—usually do not give us the information we need for instructional purposes.*

- *Diagnostic measures that provide intraindividual differences are more valuable from an instructional point of view than the interindividual differences obtained from IQ measures and achievement scores.*

- *Questioned highly structured preschool programs in terms of what they're doing to children.*

- *Proposed neighborhood home schools for a few children as an alternative to the present central physical plant organization for preschools.*

Response from the College

Dr. Kirk's proposed intensive home program sparked a lively discussion dealing with the role of the family in modern society and touching on such issues and problems as availability of parents for training, lack of the concept of development, and not a single approach for everyone.

Brazziel: You're thinking about a gigantic home start program, and a lot of preschool education in the community from house to house and on the block, you might say?

Kirk: Yes, very intensive—not what we've been doing. Not just sit with the mother an hour and counsel her, and then come back next week and do it again. I think home instruction has to be there all the time. Show the mothers how it's done. That's the intent. I think it's cheaper to do it that way and possibly more effective.

Caldwell: The question there is where are you going to find all those mothers and fathers who will receive all the training in such an intensive way? There are more and more mothers who are employed, and fewer and fewer who are available in a given neighborhood to serve as nuclei for these home schools. For me, this would be one reason that the whole issue of day care has always fit so comfortably is that it does provide a vital service to families. I agree that there need to be cheaper ways to do it, but for most of the early childhood programs that reach large numbers of particularly poor families through its children, they are also providing vital service to families in permitting the mother of the family to work. To a great extent parents are saying, let society take some of this. We have other things to do as well.

Kirk: I think what you say is correct, and I think there is more than that, because some of these parents are very apathetic. You take their kids away, and they're happy. But I think it's still inappropriate to take the responsibility off their hands. I don't know the solution to that problem. But it seems to me that if we organize programs, these are the problems we have to solve.

Whitney: When you talk about center day care, you can't just talk about family group day care. You can't just talk about home start. You have to take into consideration both the child's needs and the family's needs and put them into the service that will meet those needs.

Meyer: You're raising ethical issues about is it really appropriate to take kids out of the home, but you're focusing it on lower class parents. I really would like to make a very strong case with the kids we have in our day care center. Those mothers are working. There is income coming in. If this group were to ask what we have accomplished in day care, the one honest to god thing I could say is that we have got happy kids. I can walk in there in the morning and see happy kids. That doesn't count because it isn't a test and I don't know how to put it on the scale, but they are happy kids. We have happy parents, and somehow this is working out to their satisfaction, and if, in fact, they are bringing in some money, their whole position, their whole view of themselves as human beings, I think, has to improve. And if that improves, my guess is that the few hours that they have with their kids is probably a lot more wholesome than it might be if they were stuck.

Gallagher: Well, the fact that "they are happy" doesn't impress me too much. What Bill Meyer was raising, I think, is that the problem goes to evaluation. What is the evaluation of day care? The evaluation in the long term really has to be made on the basis of its impact on the total social system, not merely whether a kid has learned to identify pictures of animals or even that he would be happy in a group situation. So what else is happening in the same time? Most of our problems in our society have come through unexpected spinoffs of direct effects.

Meyer: My understanding of Burton White's study is the indication that maybe the best mother is the one that only interacts with the child a little bit, but does it right and really helps the child in the small amount of time that she is concentrating on it, and that isn't merely the length of time in which they are exposed together under the same roof, but it is the quality of the interaction.

Gallagher: The point is one of the objectives of the day care program. I think we agree that there are a lot of homes in which terrible things happen to kids. The question is—are we saying we will make up for this by providing a substitute or alternative environment which is better for the child and makes the child happier, or will we try and arrange a remedial program that will strengthen the unity which is failing, and, in this case, it would be the family.

Kirk: I think our main purpose is to raise questions about our procedures because we can very easily get into a rut. We need more day schools, we need more schools, we need more buses, we need more things and we have to think of alternatives and I know and somebody has said it, that we can't set up one model for everybody. There may have to be 25 different models. But we ought to have 25 different models so that for a particular group or a particular family we have a model that is adapted to them and their culture. I don't think we are exactly doing that. I still raise the question. Maybe there are better ways than the procedures we are now using.

WE CAN HAVE AN ENORMOUS EFFECT ON CHILDREN

□ The impact of nature versus nurture on intelligence has been discussed for many years by most of us. I have been classified, not so much as a nativist, but as an experientialist or an environmentalist. In spite of the recent theories of Dr. Jensen and others, I still maintain the same point of view that I had 30 years ago about the profound effects of the environment on young children.

We tend to discard much of what we observe in children because we are more comfortable with scientific analyses of the results of various control groups.

I maintain the environmentalist position based on two points of reference. The first of these is the study of clinical cases. We tend to discard much of what we observe in children because we are more comfortable with statistical analyses of the results of various experimental and control groups. Yet this nomothetic approach does not give us the insights which an individual case can provide. I think one case that Dr. Karnes and I had many years ago may illustrate this point of view.

A CLINICAL CASE IN POINT

□ We had a little boy, about 4½ years old, whose IQ score was about 75 on the Binet and other IQ tests. We took him into the preschool and worked with him a year and a half, up to the age of 6. His IQ went up 10 or 12 points to 85 and 87, but we believed that the boy was relatively normal and that his real IQ was much higher. We felt that the inhibitions to his learning were due to his mother who was quite a disturbed woman. We even asked the social agencies if they could take him out of the home, which they were unable to do. When the boy was 6, his mother was committed to a mental hospital. He was then placed in a foster home outside of Champaign, Illinois. When we followed him up at the age of 7½, his IQ was 104, he was reading at a 2.3 level, and doing arithmetic at 2.4. He was just an average kid in that particular class. That foster home and the regular school really did more than a year and a half in the preschool with one teacher to five children—as long as he remained at home with that mother.

The foster home and regular school did more than a year and a half in a special preschool.

When the boy was about 8, his mother was released from the hospital and she took him back into her home. Three years later, when he was 10½, we found him in the public schools. His IQ was now 75 and he was reading at about second or third grade level. He had made absolutely no progress in the 3 years that he had been living with his mother and attending school.

The IQ is like a thermometer of the environment.

What becomes obvious in this case is that the IQ seemed to be like a thermometer of the environment. It is more a measure of environment than a measure of native ability.

This same indication can be seen in many of the studies that have been made recently, especially in Head Start. There is an initial increase in test scores, but when the program stops, or the environment changes, the score drops. In many preschool programs, the scores are high until the age of 5; then the children are placed in kindergarten and the scores drop. Often the kids move from a

situation of one teacher to five children to a kindergarten of 30 or 40 kids. Predictably, many of them feel completely lost and the gains seem to disappear.

In addition to numerous case studies such as this, the second basis for my environmentalist position is influenced by Binet. In a classic article entitled "The Educability of Intelligence" from *Modern Ideas about Children* (Binet, 1909), Binet asserted that mental retardation is curable. He followed the medical concept of solution: when you find a disease, you seek and find a cure. How do you cure mental retardation? You cure it by education.

Binet asserted that mental retardation is curable.

Binet began two special classes in Paris, France, in 1909 to train intelligence. His curriculum involved the training of mental functions, such as attention. Binet knew that you have to have attention to learn, and he had specific exercises and games which would encourage and develop attention. One example is the game "Statues" in which everyone stops, keeping their attention on a certain position. There were also exercises for the purposes of training memory, comprehension, language, and so forth. You read that and you wonder sometimes how much we've advanced since 1909!

THE EDUCABILITY OF INTELLIGENCE: START YOUNG

□ In trying to prove the educability of intelligence, I have followed two principles. One was to start with young children; hence, the emphasis on preschool experiences. The other was trying to make an analysis of children's abilities in such a way that we can institute remediation. If we can't assess children in terms of potential treatment, we have a problem. This is one of the gross limitations of IQ scores. What good is the IQ from the point of view of treatment and education? It is merely an average score of a lot of mental functions, partly dependent upon the environment and partly upon heredity. It's just like saying, "This river's average depth is 3½ feet," and when you start to walk, you find that it's only 2 inches on the sides and 10 feet in the middle, and you can sink or swim.

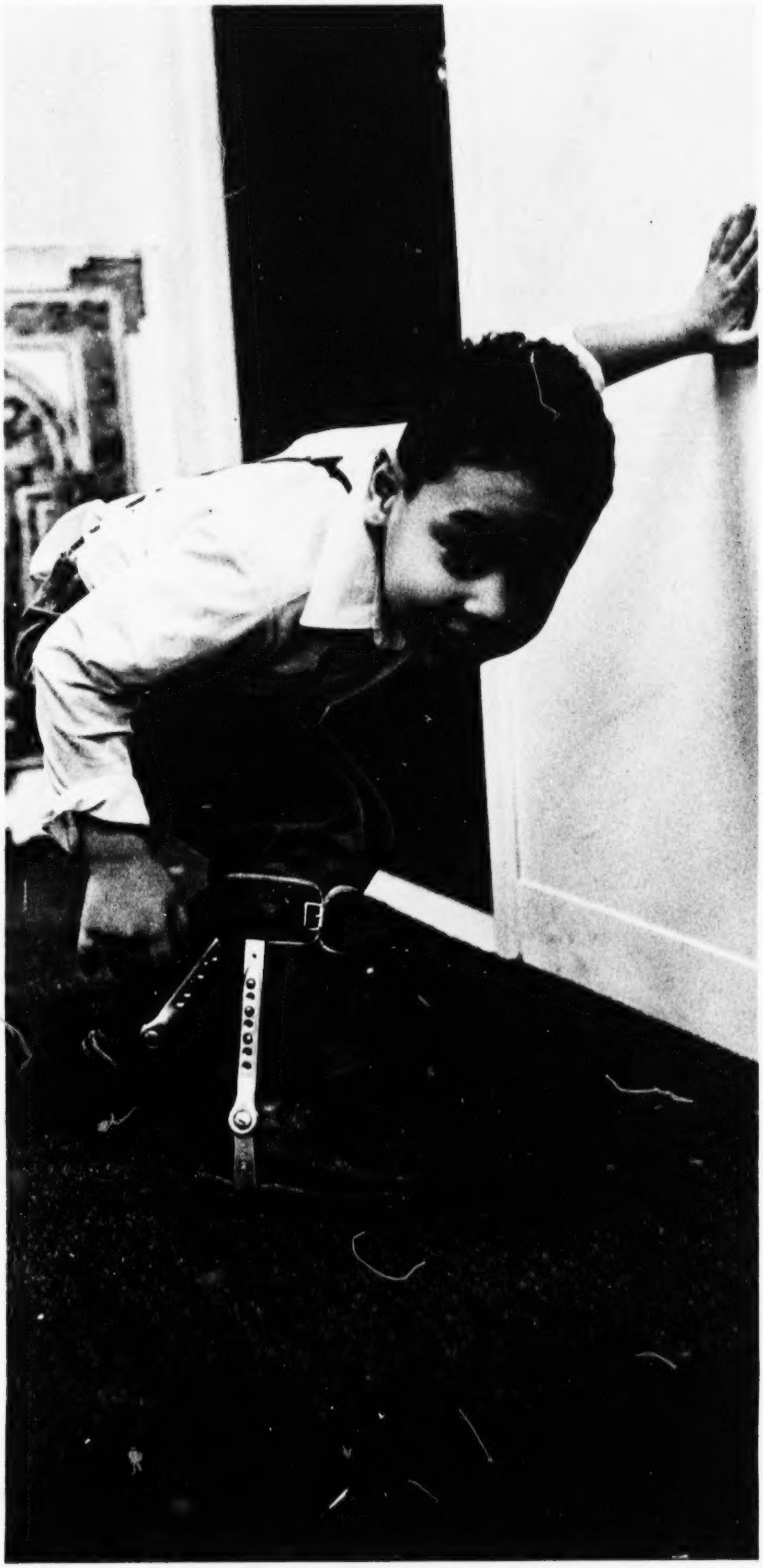
If we can't assess children in terms of potential treatment, we have a problem. This is one of the gross limitations of IQ scores.

Another problem with the use of IQ scores is that one child with an IQ of 70 often differs greatly from another child with the same IQ. Their handicaps may be very different which means their educations have to be different. It is incorrect to think that IQ scores can determine the educational program for a child. It never was set up for that purpose. An IQ test is a classification instrument which says he's bright, dull, or normal if he is raised in the average environment, which is white middle class protestant, on which the test was standardized.

Two children with IQ scores of 70 were very different . . . their education had to be different.

INTRAINDIVIDUAL TESTING

□ In regard to testing, I have been involved in what I call diagnostic examinations which measure intraindividual differences. For too long, we've been concerned with interindividual differences. We compared children against the "norm." In the field of special education we are not particularly interested whether or not Mary is



different from Sally; what we should be interested in from an instructional point of view is the intraindividual differences of how does Mary differ from Mary. What are her abilities, her disabilities, her weak points, her strong points, etc. It is on the basis of this information that we can start helping her improve.

In special education, we're interested in how Mary differs from Mary. What are her abilities, her disabilities, her weak points, her strong points, etc.

One of the reasons we worked on the ITPA (Illinois Test of Psycholinguistic Abilities) was to get a diagnostic examination which would indicate the instructional approach which was needed. In other words, a reading score of 3.2 doesn't tell the teacher what to do. But a diagnostic reading examination indicates where there are vowel errors, consonant errors, reversals, and so on. This type of examination assists the actual remediation of the problem. We need some kind of a preschool examination that will give us intraindividual differences of the young child without any reference to whether he's higher or lower than his classmates. What we really mean by individualized instruction is the adaptation or modification of instructional patterns to that particular child, not to anybody else.

We're interested in remediation, elevation, and acceleration of children rather than in labeling them.

TRAINING TO AMELIORATE DISABILITIES

□ A clinical case may exemplify this point. There was a 4 year old girl who was referred to me by a pediatrician who said that she was probably too retarded for our school because she had an IQ score below 50. She also had other handicaps: her condition was the result of rubella, she had a slight hearing loss, and the ophthamologist had diagnosed her as legally blind. The referring pediatrician had said she should be committed to an institution for the mentally retarded; the ophthamologist had referred her to a school for the blind.

The pediatrician said there were too many things wrong with this child.

In spite of these unfavorable diagnoses, she entered our preschool program. When we showed her a picture and said, "This is a cat. Say cat," she said, "Cat." Then when we showed her a chair and said, "This is a chair," and then said, "What is this?" she would eventually say, "Chair." She had nystagmus, so her eyes were jumping, but if we waited long enough she would answer with the correct response. The problem of seeing was not so much with accuracy or recognition, but with speed of recognition. Speed of perception! I remembered Thurstone's designation that one of the primary mental abilities was speed of perception. I thought maybe we could train her speed of perception. So we took her and slowly trained her on picture cards, and then we used a statistiscope. At the end of 6 months she was recognizing all kinds of pictures. In addition, she could tell us all about the pictures. We had virtually improved her vision.

When her mother came in one day, I suggested she take her daughter back to the ophthamologist to show him how her vision had improved. When the mother returned from the appointment she said that the opthamologist still diagnosed the girl as legally blind. So I took this little girl to the clinic myself. In the ophthamologist's office I opened a book and said to her, "Sharon, tell the doctor what

She was legally blind . . . but could tell you everything in that picture.

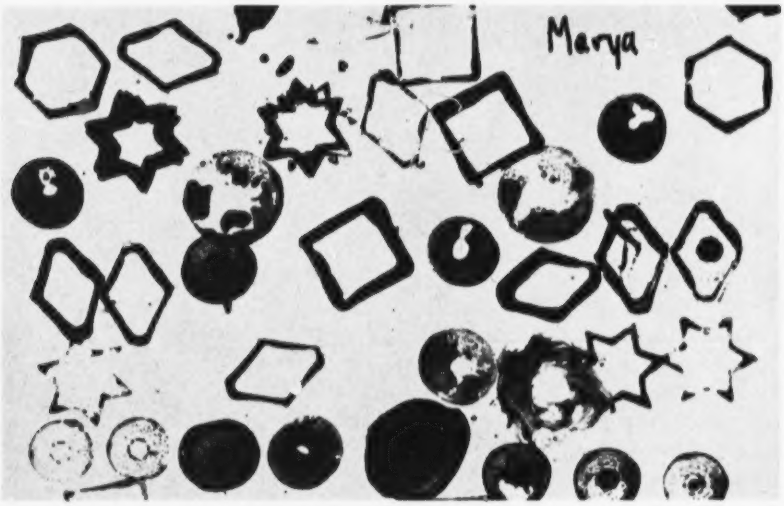
you see." She told him in detail everything she saw in the picture and also in pictures in his office and on his desk. I asked him how he could diagnose this girl as blind. And he answered, "Well, our instruments still measure her to be blind, but tell me—what did you do to teach her to respond so accurately to pictures?" I proudly announced that we trained her vision through intensive exercises. He said, "No, you didn't train her vision; her vision is exactly what it was when I measured her before. You actually trained her central processes." He was right. We did train her to see faster. We increased her speed of perception. This is what I mean by intraindividual differences and the amelioration of specific disabilities through specific training.

IQ AND MENTAL AGE

☐ I have another concern with the labeling and measurement of progress at the preschool level. The use of achievement tests and IQ ratios usually do not show changes in cognitive development as being very exceptional. The mental age may have grown significantly for that level, but the IQ score only shows a 10 or 12 point increase. But at the preschool level, we must remember that if we increase the mental age from 4 to 6, and they are 7 years old, there is only a 10, 12, or 15 point IQ change. If we evaluate in terms of mental age, then we see a big change.

IMPACT OF ENVIRONMENTAL CHANGE

☐ In one particular study I did with Dr. Karnes, we planned to use twins—to put one in a preschool setting and leave the other at home. Unfortunately, nature wasn't that good to us, and we only got two sets of twins. Therefore, we decided to compare older and younger siblings. We found that the children who were taken out of the home and put in foster homes and the preschool made the largest gain.



Those who stayed at home with no preschool actually dropped in IQ score. Even at the age of 8, on the followup, they were lower than they were when we tested them at age 4½. So we have some evidence that the larger the impact, the bigger the change in the environment, the greater is the rate of development.

We have evidence that the larger the impact, the bigger the change there is in the environment, the greater the change in the child.

One of the things that is wrong with some of our studies today is that we are not having a total change of environment or a total change of training. What are we doing? We're taking children into schools like Head Start for half a day for 8 weeks in the summer and expecting results. We're taking them in for 2 or 3 hours a day and then we wonder why we're not getting the great results we think we should. Rick Heber's study in Wisconsin is an exception to this. In Heber's cradle schools he is attempting a total impact approach. I talked to him a long time ago about this problem and discussed the need for a study with a 24 hour a day stimulation, or at least waking hour stimulation. In many of the preschools I see, children go to school about 9:00 or 10:00; they talk, do little things for a few hours, then they have something to eat and go to sleep for 2 hours. Then they go home. This is great preschool education. When they are measured, their IQ's have perhaps gone up 5 points, and some people conclude that this is very significant. Unfortunately, it is not very significant.

We need a study with the impact of . . . at least waking hour stimulation of a child.

One of our studies was to find 2 year old disadvantaged children and teach them one hour a day in the home. In this study a tutor went to the home one hour a day. This group showed an 8 point increase in IQ. The control group showed no gain. Then Dr. Karnes took them at age 3 into the preschool for 3 hours a day, and their IQ's went up 12 points more. I often wondered what would happen if these kids had 8 or 10 hours a day of the same experience.

NORM OF REACTION

☐ I believe that these controversies of heredity versus environment can be resolved. Dobzhansky's Theory of the Norm of Reaction offers a partial answer to the controversy. Dobzhansky said that we are born with a range of intelligence, a norm of reaction, and that we do not know what this norm of reaction is for a particular child. With a mongoloid child, it may be 5 points of IQ or 10 points at the most. For other children, it may be 10, 20, or 30 points.

In 1940 I wrote a book on *Teaching Reading to Slow Learning Children* and I discovered that I had preceded Dobzhansky on that particular issue. I wrote that it is possible that inheritance fixes the limits of intelligence, but that there is a large range within which the environment can raise or lower IQ. For example, a child may be born within the intelligence range of 70-110 IQ. A stimulating environment will probably show his IQ to be 110, while a very routinized, unstimulating environment may show his IQ to be 70. This is similar to Dobzhansky's idea of the norm of reaction. I think the norm of

There is a large range within which the environment can raise or lower IQ.

reaction works just the same way in language development as it does in IQ, i.e., there is a range within which environment can lower or raise it.

LET'S QUESTION STRUCTURED PRESCHOOL PROGRAMS

☐ I have been leading up to an idea here that I would like to propose. In comparison to total impact, much of our efforts to date are only partial in the development of cognitive abilities in children. We need to raise some questions about what we are doing, and I would like to raise a few for your consideration. I am sympathetic about many of the things we do, like deciding on behavioral objectives, or using the IQ even though it really doesn't help us in teaching because it may help us somewhat in classification and research, or using behavior modification techniques. What does concern me, however, is whether or not we are deciding everything for a little child. Are we molding him into what we want him to do or be? Are we stymying creativity and development? These are the questions we need to ask.

What does bother me is whether or not we are deciding everything for a little child.

Many of our preschool programs are very highly structured. I have observed more than a few little kids. They run around manipulating everything; they explore for themselves. And I just wonder sometimes about our structuring and defining of behavioral objectives and evaluations. We've got to question all of those. I like many of the methods, and I've used them for many years, but we always need to question what we are doing with our procedures because we may be missing something.

PRESCHOOL vs HOME SCHOOL

☐ The second type of question I would like to raise is: Are we really on the right track in organizing centrally located preschools in this country? When I calculate the budget of a preschool, I realize that in these large cities we're paying enormous amounts of money for transportation, for the physical plant, for the janitors, the superintendents, and so forth. The amount which we are paying for a teacher working with a child becomes a very minor part of the budget. We have so big an overhead that we need to ask if it is economically feasible to have preschools for children when very little of it is really going for the main task of interaction between a teacher and a child. Therefore, we should explore some alternative methods to schooling.

The amount of money spent for a teacher working with a kid is a very minor part of the budget.

One possible alternative is that we put our money into setting up home schools for kids in a block or small neighborhood—without physical plants, without transportation, without many of the expenses that drain the finances of existing preschools. I know that many of you have worked with parents, but most of the time you have worked only partially with parents. We haven't discovered a practical system of how to do it in the home on a wide basis. Of course, we have a lot of models. Among the middle class, four or five mothers often get together and say, "Look, I'll take the five kids in

Maybe we ought to put our money into home schools . . . without physical plants or transportation.

my home for a week, you take them for a week, and I'll have a vacation that week."

How about employing just one teacher, especially with the disadvantaged? Transportation would be from one home to the neighbors' from the same block. The teacher can serve three or four families and help them set up preschools in their homes, buy the materials, and initiate the instruction. This will become an all day educative program that may have a bigger impact than spending the money on administrators, physical plants, and transportation. We can channel our resources into the home and possibly develop programs more effectively and economically. This is one system that we can look into for neighborhoods and families that can share their time for a small group of children in their homes.

This will become a 24 hour treatment program . . . . We can channel the resources into the home and develop programs more effectively and economically.

Binet, E. *Les idees modernes sur les enfants.* Paris: E. Flemanarion, 1909.
Kirk, S. A. *Teaching reading to slow learning children.* Boston: Houghton Mifflin, 1940.

II. identification of children needing special help

increasing the lead time for the preschool aged handicapped child

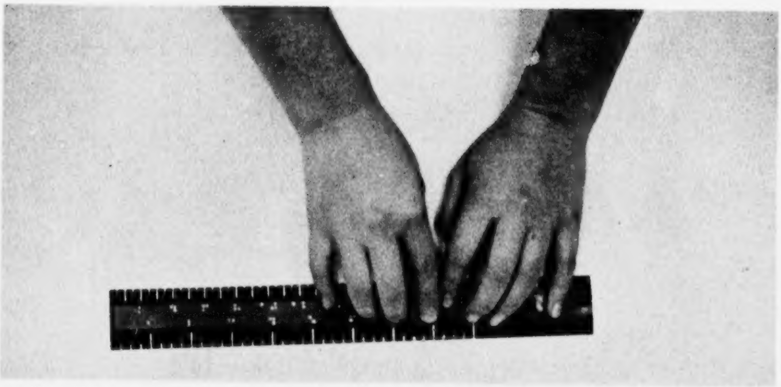
william k. frankenburg

Dr. William Frankenburg's presentation is directed to the administrator in the public school or preschool program who is trying to decide "What am I going to look for?" "How am I going to do the screening to find that handicap?" He suggests that people look more critically at *what* they are trying to do and avoid the typical pitfall of planning treatment on the basis of screening results.

Key Ideas

- *Don't screen for handicaps and disease after it's too late for treatment. If you can't treat the handicapping condition with expected improvement, don't screen for it.*

- *Prevalence is an important factor in screening. Consider the prevalence of a particular condition which may vary with the age of the child, racioethnic factors, socioeconomic background, and how the handicap is defined.*



- *Do not screen for conditions with very high prevalence, such as 90%. Instead, plan to provide diagnostic evaluation to all.*

- *Persons responsible for followup evaluations should have a voice in determining the methods of screening and referral.*

EMPHASIS ON SCREENING

We have recognized the importance of the first 6 years of life in shaping the future development of children.

☐ During the last few years there has been increasing activity in the early identification of preschool aged handicapped children. One of the major reasons for this new interest has been the recognition of the importance of the first 6 years of life in shaping the future development of children. Another reason has been the shift of emphasis in medicine from the treatment of illness to the maintenance of health. Health maintenance programs make use of screening tests and procedures to detect health problems or handicaps in the symptomless precursory stage before the problems progress to a less manageable phase.

There are thus two problems for the clinician or teacher who desires to set up a screening program. The first is the selection of a handicap or disease to screen for and the second is which of the many tests available to detect that handicap will, in his situation, best meet his particular needs.

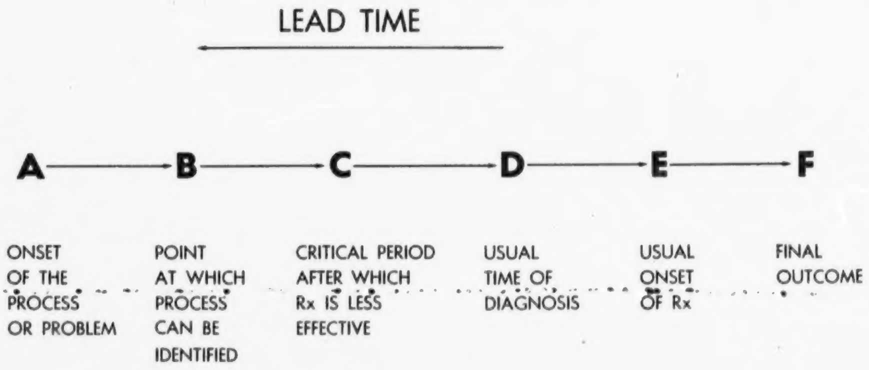
The current national emphasis on evaluation and cost effectiveness is already manifest in Head Start and other programs, such as the Handicapped Children Early Education Projects. I think that this emphasis is very helpful since it should do much to force us to identify areas of strength and weakness in screening programs. Hopefully, such evaluations will lead to a more effective means of the early identification of handicapped children.

CONSIDERATIONS IN DEVELOPING A SOUND SCREENING PROGRAM

☐ Data on the success and failure of screening programs have brought to light considerations to be thoroughly explored before embarking on such a program. Naturally, one of the first questions is: Which of the many possible handicaps are we going to screen for? What factors must we consider in making this selection?

It will be helpful here to look at Figure 1 which illustrates the usual chain of events in the development of handicapping conditions.

Figure 1. The Development of Handicapping Conditions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ONSET OF THE PROCESS OR PROBLEM
POINT AT WHICH PROCESS CAN BE IDENTIFIED
CRITICAL PERIOD AFTER WHICH Rx IS LESS EFFECTIVE
USUAL TIME OF DIAGNOSIS
USUAL ONSET OF Rx
FINAL OUTCOME

First of all, you have A, the onset of the problem or the process on the left, B, the point at which this process can first be identified, C, the critical period after which treatment becomes less effective, D, the usual time of diagnosis, E, the usual onset of treatment, and F, the final outcome. Therefore, by screening, one moves up the time of diagnosis. Any handicapping condition for which screening is to be of value must demonstrate that treatment after the usual time of diagnosis, in other words, after D, is less effective than if it is treated before D.

For example, in a condition called amblyopia, which is a type of loss of vision, the process begins during the first few years of life. Amblyopia can be detected and treated by 3 to 4 years of age. If treatment for the affected eye is delayed until school age, when the condition is most commonly identified, it is often too late to avoid eventual blindness in that eye. Thus the benefit of early treatment is an essential consideration in selecting a handicap for early screening procedures.

Benefit of early treatment is an essential consideration in selecting a handicap for early screening.

Unfortunately, however, we frequently do not know enough about the natural course of diseases and handicapping conditions to know which individual who has a subclinical picture of a handicap will actually develop that handicap. It is unlikely that all individuals in the predisease state develop the disease in question. Therefore, it is very likely that we are treating more individuals than necessary and that our successful treatment data are falsely inflated. This circumstance has occurred in the case of phenylketonuria. As screening became more common, we identified what we thought was a mild subclinical precursor of the full disease of phenylketonuria. We now have begun to realize that some of the mild subclinical precursors are totally different genetic variants and are not destined to develop into PKU or to lead to retardation.

It is very likely that we are treating more individuals than necessary.

The prevalence of the handicap or disease must also be considered in setting up a screening program. The prevalence frequently will vary with the age of the child, racioethnic factors, or socioeconomic background. For instance, the incidence of conductive hearing loss increases during the first few years of life, and also increases inversely with social class. In other words, the lower the social class the higher the prevalence. Another point to consider, of course, is that the prevalence will vary with how we choose to define the handicap. If we include all gradations, such as mild and severe hearing problems, we obviously will find a higher prevalence than if we only consider severe hearing handicaps. If the problem is very prevalent, such as dental disease among the poor, it may not be efficient to screen first, since most children will need treatment. It therefore may be best to plan to treat most of them. On the other hand, if insufficient personnel or funds are available to treat all of the individuals, it may

Prevalence of the handicap or disease must also be considered in setting up a screening program.

Prevalence will vary with how we choose to define the handicap.

be best to screen all of the children to determine which children fall into various priorities for treatment.

Highly important in the screening program is to determine if screening and earlier treatment do alter the usual outcome.

Unfortunately, all too often there are little or no data pertaining to these factors. If the critical information is not available, it is important to realize that screening for a particular handicap may not alter the final outcome of the disease process. However, it then becomes highly important to gather data in the screening program to determine if screening and earlier treatment do alter the usual outcome, and if the program itself should be continued.

SELECTING A TEST

□ With the proliferation of screening tests there has recently been a greater emphasis on their evaluation to find the best test for particular needs. One major consideration with any test or procedure is cost. This includes cost of equipment and its depreciation, of training of personnel, of collecting specimens such as blood or urine, as well as the cost of screening one child. Frequently overlooked is the cost of reporting results or obtaining a followup of suspect children. A recent report from one hospital in Great Britain indicated that one fourth of the entire cost of PKU screening was for reporting screening results.

Another consideration is the acceptance of the screening test by the lay public, which ultimately will determine how many can be screened. Acceptance by the professionals who provide the needed backup diagnostic evaulation is also required for a successful program.

RELIABILITY AND VALIDITY

□ An evaluation of a screening test must also include the test's reliability, the similarity or reproducibility of results. There are several types of reliabilities to be considered. First, there is the

reliability of the instrument. Another is that between two or more testers who are scoring the same test response. If a screening test fails to yield reproducible results, the screening test will very likely not yield valid results. On the other hand, if the disease process is so short that it produces unreliable results, it may not be valuable to screen for or to identify the disease in question. For instance, some cases of hearing loss disappear before a child is seen for followup.

If a screening test fails to yield reproducible results, the screening test will very likely not yield valid results.

The validity of a test is the accuracy of the test in measuring what it is supposed to measure. Thus, for tuberculin screening the validity is determined by the correspondence between a positive screening result and the diagnosis of tuberculosis, as well as a negative screening result corresponding to the absence of tuberculosis. The validity of a test can be represented by a two by two table (Figure 2).

Perfect agreement exists between the screening test and the identification of all the diseased subjects if all subjects fall in the *a* square and none fall in *c*. In such a situation no diseased subjects would be classified as negative with the screening test and *c* would equal 0. The accuracy of a screening test in correctly identifying all of the diseased subjects is termed *sensitivity*. In other words, sensitivity is those correctly suspected as being abnormal divided by the total number of abnormals. Sensitivity is, therefore, calculated as percentage by utilizing the following formula:

$$\frac{a}{a + c} \times 100 = \text{Sensitivity}.$$

Correctly identifying all of the diseased subjects is termed sensitivity.

Since it is possible to correctly identify all of the diseased subjects by classifying *all* of the subjects as positive or diseased, we must also

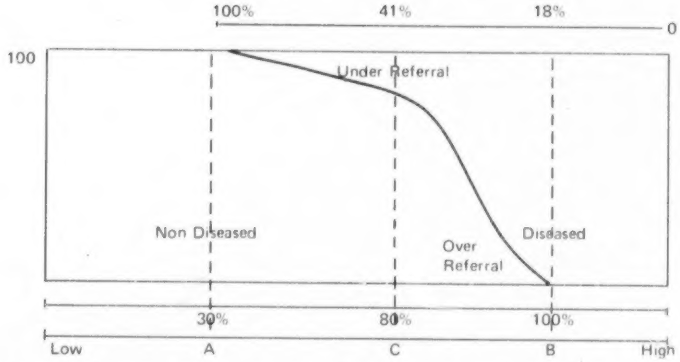
Figure 2. Test Validity

		DIAGNOSIS	
		+	—
SCREENING TEST	+ ABNORMAL	a	b
	− NORMAL	c	d
		a + c	b + d

SENSITIVITY $\frac{a}{a+c} \times 100$

SPECIFICITY $\frac{d}{b+d} \times 100$

Figure 3. The Frequency of Positive and Negative Results



From Frankenburg, W. K., & Camp, B. W. *Pediatric Screening Tests*, 1973. Courtesy of Charles C. Thomas, Publishers, Springfield, Illinois.

Disease/Handicap	Serious	Separation Diseased/ Non Diseased	Early Detection Improves Prognosis	Treatable	Adequate Lead Time	Prevalent	Facilities to Dx and Rx	Cost Justified	Comment
Bacteriuria	+	+	+ ?	+	?	+ Girls	+	+	
Tuberculosis	+	+	+	+	+	– Kinderg. 0–2% 1st Grade 0.3% 2–6	+	±	Simpler to identify new cases by testing contacts of known cases.
Anemia	±	+	?	+	±	Ghetto infants 15–60%	+	+	Indirect Implications Peaks 6–18 mo., Puberty.
Hemoglobinopathies Sickle Cell Disease	+	+	±	–	–	Blacks 8–12%	+	+	Affects Rx of other illnesses and genetic counseling.
G6PD Deficiency	+	+	±	–	–	Blacks 10–15% Mediterraneans up to 50% males	±	+	Affects Rx of other illnesses and genetic counseling more severe among Mediterraneans.
Mental Retardation	+	+	+	+	+	3–5%	±	±	Much MR due to environmental factors which most amenable to Rx first few years of life.
Hearing Impairment	+	+	+	+	–	3–5%	+	+	
Amblyopia	+	+	+	+	+	2%	+	+	Definitely best Rx prior to six years of age.
Articulation Disorders	±	+	+	+	+	+	+	+	
Language Disorders	+	±	+	+	+	+	+	+	
School Learning Problems	+	±	±	+	±	2–50%	±	?	
Dental Abnormalities	+	+	+	+	+	+	+	?	
Other									

Figure 4. Do Common Diseases/Handicaps Meet Criteria for Screening?

determine the accuracy of the test in correctly identifying the nondiseased subjects. A perfect agreement between a test and the diagnosis exists here if use of the screening test makes it possible to classify all nondiseased subjects as negative. *Specificity*, the second type of test validity, is the agreement between the test in classifying subjects as negative and the diagnosis in classifying the same subjects as nondiseased. To meet this situation, all subjects would fall into square *d* (Figure 2). Specificity is calculated by the formula:

$$\frac{d}{b + d} \times 100 = \text{Specificity.}$$

To achieve 100 percent sensitivity, as well as 100 percent specificity, it would be necessary for all subjects to fall in the *a* and the *d* squares of Figure 2. This condition is only met on very rare occasions. More often, errors are made erroneously classifying a diseased subject as negative, or in classifying a nondiseased subject as positive. The first error, represented by *c*, is often spoken of as an

Disease/Handicap	Whom	When	How	Comment
Bacteriuria	Girls	When first able to void clean catch specimen, repeated at 5, 12 and 14 years.	Testuria® Quantikit® Microscopic puss cells and bacteria	Not necessary to stain or centrifuge prior to microscopic exam.
Tuberculosis	Population with prevalence over 1 percent.	5 and 12 years.	Multiple puncture tests Tine®, Health Monovac®	Positives must be confirmed by PPDT Mantoux.
Anemia	Everyone	6–18 mos. and puberty	Hematocrit.	
Hemoglobinopathies				
Sickle Cell Disease	Blacks	6–12 mos.	Sickle dex® Rapid Electrophoresis	For genetic counseling. Also need to screen for Hb© and Thal. No screening for Heterozygotes at present.
G6PD Deficiency	Males – Blacks and Mediterraneans	Birth	Beutler fluorescent Dye decolorization	
Mental Retardation	Everyone	9 mos., 3 and 5 years.	Denver Developmental Screening Test	
Hearing Impairment	High Risk Newborns	Newborns, 3 or 4 years and in school as required by State law.	High Risk Questionnaire plus Neonatal Audiometer Pure Tone Audiometry with Play Conditioning	
Amblyopia	All children	1, 3 and 5 years.	Tests of vision and strabismus.	Vision is only crudely tested before 3 years of age.
Articulation Problems	All children	3, 5 and 8 years.	Denver Articulation Screening Exam Templin Non Diagnostic Articulation Test	
Language Problems	All children	3 and 5 years	Houston Test for Language Development	
School Learning Problems	All children	4–5 years of age.	Sprigle School Readiness Test	
	All children	Grade 3.	Wide Range Achievement Test	
Mental Normalities	All children	Yearly after 2 years.	Visual Inspection.	

Figure 5. Guideline for Screening

underreferral. The second error, represented by *b*, is called an overreferral.

In general, the presence or absence of disease is not as clear cut as is implied in the table. This is because the presence or absence of disease is not an all or none condition but rather a continuum which varies from the total absence of disease through the preclinical or subclinical state to the state of overt manifestation. Despite the continuum of signs and symptoms, for screening purposes it is necessary to have a cutoff point to separate the negatives (those not suspected of harboring the disease) from the positives (those suspected of harboring the disease). The location of the cutoff point on the continuous curve of frequency of levels will determine the frequency of positive and negative results and will, therefore, establish the sensitivity and specificity of the test (Figure 3).

COORDINATING SCREENING AND DIAGNOSIS

□ Since screening is a means towards an end, namely, the earlier identification and treatment of children with chronic handicaps, it is essential that there be coordination between screening and followup diagnostic evaluations. Therefore, persons called upon to do the followup evaluations should have a voice in determining the methods of screening and the methods of referral. If such coordination is not built in from the beginning, the children and their parents may be faced with being referred for followup, while the persons performing the followup may refuse to see the children because of the lack of acceptance of the screening procedures. Likewise, there should be coordination between followup evaluations and treatment.

ADMINISTERING SCREENING TESTS

It is of utmost importance that the screening personnel meet minimum requirements of proficiency.

□ Since the accuracy of screening results is largely determined by the proficiency with which the tests are administered, it is of utmost importance that the screening personnel meet minimum requirements of proficiency throughout their employment. Machines used for screening must also be recalibrated periodically. Minimum standards of ambient noise and lighting, as well as avoidance of distractions, are also important in assuring valid screening results.

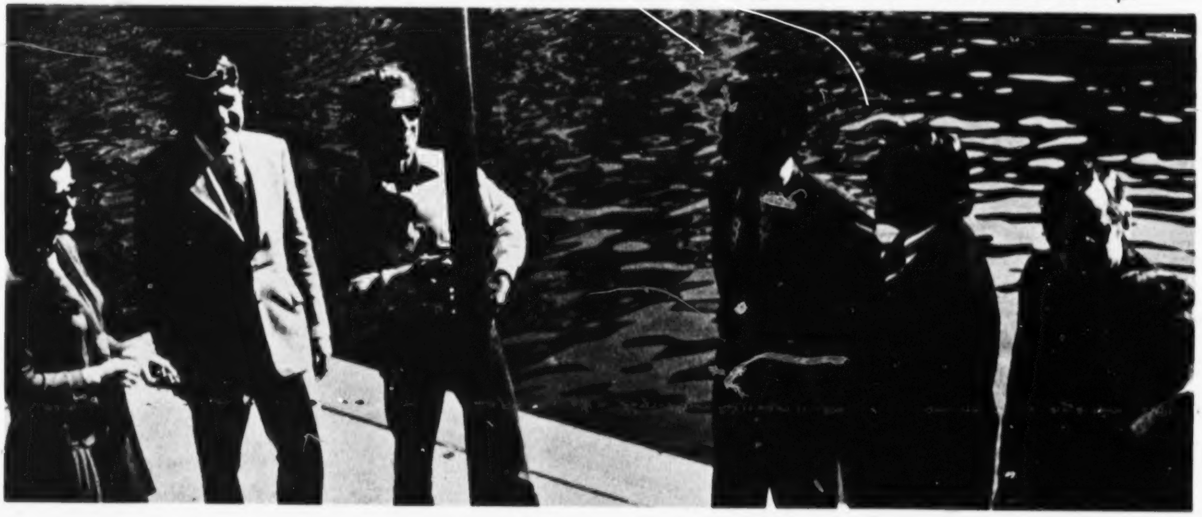
It is necessary to monitor all aspects.

After all of the above cautions plus others have been observed and the screening program has commenced, it is necessary to monitor all its aspects. Daily checks of data will reveal circumstances of inadequate data recording. Spot check rescreening of children as well as ascertainment of agreement between positive screening results and the followup evaluation are also essential.

OVERALL EVALUATION OF A SCREENING PROGRAM

□ For complete evaluation of a screening program, it is necessary to determine whether

1. All children have been screened.
2. All children suspected of having a problem have been referred, unless the problem was evaluated previously.
3. All children with suspected problems have received followup.



4. All children requiring treatment have received the indicated treatment.

Determination of the number of new problems uncovered as well as determination if earlier identification and treatment have altered the eventual outcome for the handicapped child complete the evaluation process.

ONE DANGER OF SCREENING

☐ One final consideration that must not be overlooked is that screening out suspected problems has the potential of creating undue anxiety and "labeling" of children. It is therefore of utmost importance that screening tests only be utilized for their indicated purpose—namely, the mass testing of large populations to separate those individuals who have a high likelihood of manifesting a handicap. For this reason, too, it is important to explain to parents that results of a screening test do not make a diagnosis, and the results of screening should not be interpreted to parents as indicating that a child has a particular problem. Likewise, it is irrational to plan treatment solely on the results of a screening test.

Results of a screening test do not make a diagnosis.

PRECISION NEEDED

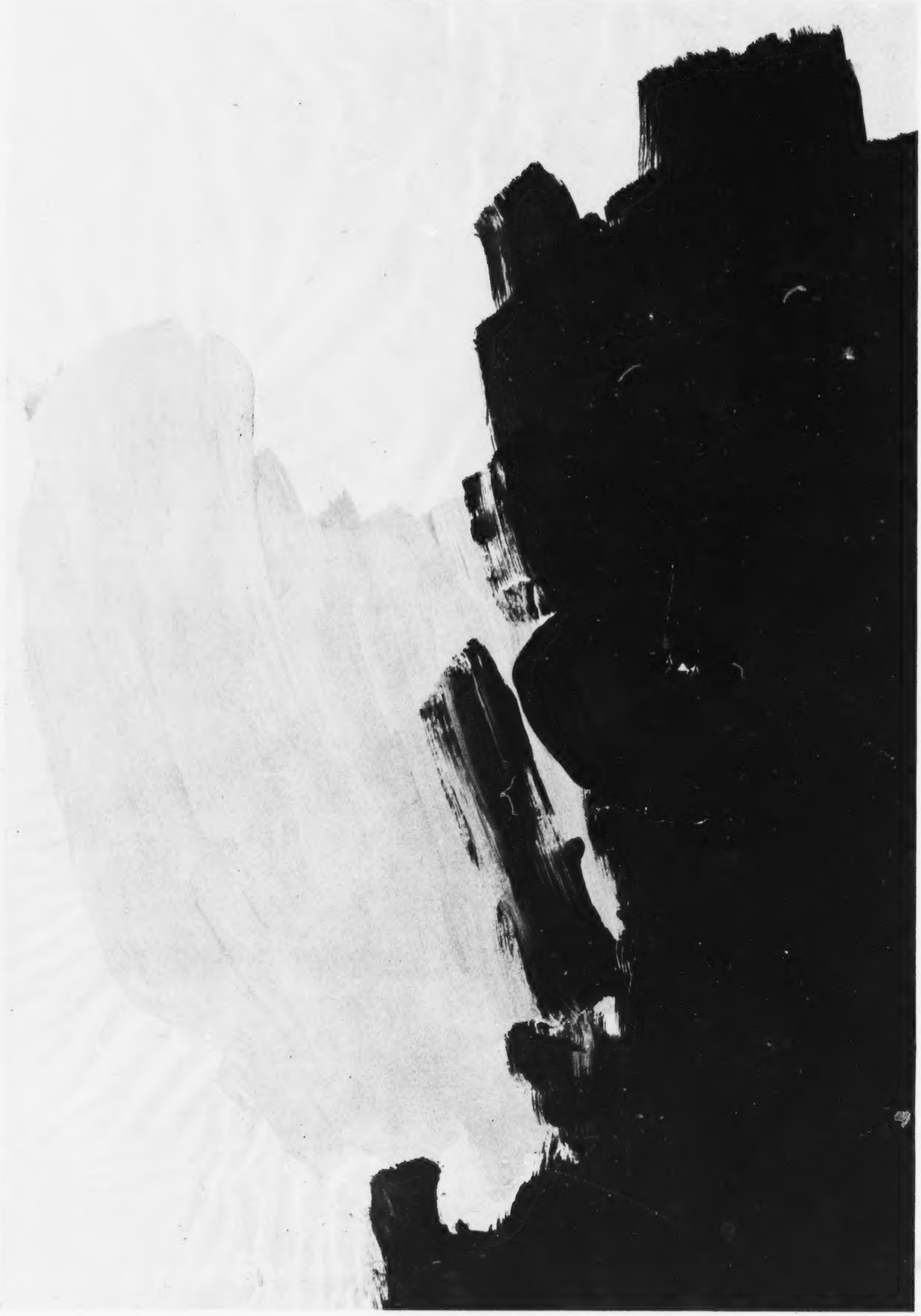
☐ I think that in the future we shall observe greater selectiveness of handicaps for which we screen, and hopefully we shall have better screening tests. The present recommendation of repeated auditory screening of children who are at high risk for auditory problems is an example of selective screening. In addition, we shall probably witness a greater selection of appropriate screening tests and more data on validity with changes in the selected cutoff points between normal and abnormal. Thus, with greater precision in tests, it should be possible to more effectively find the handicapped children and steer them early to beneficial remediation programs.

teachers for little children who are exceptional

william f. brazziel

Dr. William F. Brazziel calls for retraining of school psychologists to eliminate the misplacement of children in classes for the retarded and to bring about an opportunity for quality education for exceptional children. Too often children, particularly minority group children, are mislabeled and misplaced because of insensitive diagnostic and measurement procedures and the reluctance of teachers and administrators to challenge the present system of testing. He suggests that these errors can be corrected by eliminating IQ tests, by putting all but severely retarded children into the regular classroom, by eliminating normative based achievement tests, by making Piagetian programs the rule, and by using culture specific tests.

Teachers need retraining in diagnosis and sequencing in a Piagetian fashion and a high impact skills center. Dr. Brazziel concludes that "school personnel are too timid or too inept to take bold steps where they are needed."



Response from the College

Dr. Brazziel's challenge for retraining of school psychologists and teachers and elimination of standard testing procedures sparked an excited discussion by the College.

Dr. Frankenburg felt that there is not so much a need for more tests, as there is a need for better interpretation and ongoing evaluations of the children. He posed as a basic question, "Is the test helping to achieve what you're trying to achieve?" He further suggested that better use of tests can be made by pairing out those children who are not in the usual range of performance with other children on whom the tests were standardized and which correlated with IQ's, and so on.

Dr. Gallagher reacted to the idea of reading specialists attached to each primary unit. He pointed out that a "call for bold, dynamic action is no substitute for doing a little arithmetic. The real problem is not education–the problem is mass education. How many schools are there in this country? How much manpower is available to fill that void? What are the training facilities that are available and what do they cost? How many people are capable to in fact run such a training program? And if they are not capable how much money will it cost to retrain them? What are in fact the costs for individual trained help? Now, all I'm suggesting is that if we're going to have a reading specialist or a learning specialist in each class or each school, then let's find out what that means in terms of are there in fact people available even if we had all of the money and everything else. Are there that many people available who could do that kind of job?"

Dr. Brazziel replied that there would not be a need for such specialists in all schools, but only those schools, "where the disadvantaged child resides to a very large extent." There should be a mobilization "to find out what is there and then get money and train both what is there and if there is more" add to it!

Dr. Meyer felt that perhaps it was not such a bad idea to administer a Binet and never turn up with a number. The number rating becomes irrelevant because an educator can write a better report in terms of what the child's competencies are, what his weaknesses are, by never recording a number.

Dr. Frankenburg followed immediately by saying, "What I think we need is a profile of ability or performance level so that we can program the individual."

Dr. Stedman expressed his concern at what appeared to be "an either/or or an all or none movement toward the establishment of training outside the context of the university."

Dr. Brazziel hoped that renewal centers could buy training from the universities, in order to arrange the training of teams of teachers from a school system which needed that critical mass of knowledge.

Dr. Kirk, in reaction to the influence of psychologists' testing procedures, expressed his misgivings in taking psychologists, offering them quick solutions, and retraining them to be diagnosticians. Many psychologists "are resistant to change." Perhaps in his summary Dr. Kirk best interpreted the focus of concern in Dr. Brazziel's remarks when he said that Dr. Brazziel "was not talking about preschool education and the work of psychologists in preschool education . . ." as much as "he was talking about the activities of psychologists at the school aged level." Kirk suggested that if they are to retrain psychologists in renewal centers, that they could probably retrain them for better work within public schools, Dr. Kirk recognized the contribution psychologists have made at the preschool level. He mentioned behavior modification and programed learning as two positive contributions. These innovations, he said, "came from psychological studies applied to preschool, and . . . this is where we want to concentrate our efforts in the training of psychologists, program material to do something with children."

POINTS FOR RETRAINING OF TEACHERS

We need to utilize a wider array of skills in offering quality education to exceptional children.

□ There is a vital concern for exceptional children in the US Office of Education and in the nation, and the needs for more skilled manpower to operate a variety of programs are felt keenly. I am especially concerned with the problem of training teachers in the colleges and on the job to utilize a wider panoply of skills than has previously been the case in offering quality education to exceptional children. An attempt has been made to identify points at which retraining for administrators and support personnel is needed in order to assure that the new techniques can indeed be practiced by teachers. There are also suggestions for national government policy and for professional guilds operating in this area.

AVOID MISLABELING AND MISPLACING CHILDREN

□ The mislabeling and misplacement of children is probably the most serious problem in special education today. School psychologists must be retrained to eliminate this mislabeling and misplacement of children in classes for the retarded. This is not new. Since the schools alone are unable to eliminate the problem themselves, the courts seem determined to eliminate it for them. The NAACP filed suit in Federal District Court in San Francisco on December 3, 1971, seeking to dissolve all special education classes in California schools on the grounds that most of the children in the classes were normal and had been misplaced by bad testing. A suit had been filed by a Chicano group 2 weeks prior to this. The judge arranged to hear the cases jointly. The decision has not been handed down at this writing. Last year, *Newsweek* carried a poignant story of a Chicano mother whose son had been placed in classes for retarded students since first grade. At age 13, it was revealed that her son had never been retarded. This mother is now afraid to send her 6 year old to school because she is certain that the "authorities" will classify this child as retarded.

How did American education get into such a position that horror stories of this type can be truthfully written about it? That its clientele regards it as a hostile and dangerous authority? That civic groups must go to court and seek protection against its abuses?

Overreliance on psychologists and diagnostic tests must be eliminated.

Overreliance on an imprecise tool is one of the reasons for this problem, plus the reluctance of many teachers and administrators to challenge the diagnosis of psychologists resulting from our present system of testing. I will not bore you here with yet another recitation about cultural bias in tests. I will emphasize, however, that new instruments are needed and may be on the way. The Stanford Binet, the test that has erroneously consigned thousands of minority children to classes for the retarded, was standardized on 4,400 white children, more than half of whom lived in California. Conspicuously absent were minorities and white children from the southeast. The Wechsler was standardized on 2,200 white children mostly from the northeast.

JMO

RECOMMENDATIONS FOR IMPROVEMENT

Remove IQ tests.

□ How can inappropriate testing and misplacement of children be avoided? I would like to offer a few suggestions for remedying the situation. First, I believe that IQ tests should be eliminated from schools. They already have been in an increasing number of school districts. The government and professional organizations should aid and abet this movement in any way they can.

Place in regular classes.

Second, it should be determined that all but the most severely retarded children should stay in the regular classroom. The need for labeling and dumping is thereby eliminated.

Eliminate normative based achievement tests.

Third, criterion referenced testing as propounded by Henry Dyer and others should replace normative based achievement testing.

Increase Piagetian programs.

Fourth, Piagetian programs should be the rule rather than the exception in primary education. Here, the school ascertains the level of development of every child and uses the school program to maximize this development. "Child racing" is eliminated.

Use culture specific tests.

Fifth, culture specific tests should be developed and used in the few cases where intensive diagnosis is needed. Here, the manipulation of familiar symbols assures more accuracy in diagnosis and eliminates language and geography as factors. A Mississippi Delta child might be asked to match single trees, blue ticks, dashers, walkers, lespedeza, tedders, hamestraps, and sweetmilk—if he lived in the country. A city child in Mississippi might be given other tasks. Culture specific tests are not new. It has simply been unproductive in the $300 million testing industry to market them for any of the 30 or so small cultural groups inhabiting the American landscape.

TEACHERS NEED TO BE TRAINED FOR A NEW ROLE

□ It follows that if large numbers of children who need assistance are left in the classroom, the regular classroom teacher must be retrained to deal with them in a satisfactory manner. The ideal combination would be a classroom teacher well trained in diagnosis and sequencing in a Piagetian fashion plus a high impact skills center with reading and mathematics specialists attached to each primary unit.

A good model for this sort of thing is the High Challenge program operated by Juanita Jones of the Tulsa, Oklahoma public schools. This program is funded by USOE. High Challenge teachers use a sophisticated system of short diagnostic tests and teacher observation to work with six or fewer slow children in each classroom. Each teacher is trained to quickly ascertain exactly where the child is in a particular exercise or lesson and to begin a proper sequence of experiences designed to bring him to where he should be. Reading specialists and specialists trained in learning disabilities are attached to each school and are immediately available upon request by a teacher who needs extra assistance in this process.

Another good example of this method is the group of schools studied by George Weber of the Council for Basic Education. These are slum schools which are succeeding in spite of the great odds against them. Weber identified the critical aspects of these schools as follows:

- A hard driving, no nonsense administrator who is determined to have a good program.
- High expectations for success on the part of every teacher.
- Sophisticated use of phonics.
- Reading specialists attached to each school.
- Sophisticated and heavy use of diagnostic and progress testing.
- Progress grouping after the first year with fluid movement between groups.

I would also recommend that a significant percent of the school dollar be spent on school programs such as the Cradle Schools operated by Rick Heber of the University of Wisconsin. Although Heber's operation appears successful, the average superintendent or board chairman would hesitate at the suggestion of Cradle Schools operated by school systems. We have a reeducation job to be done here with regard to the value of such programs.

Heber's Cradle Schools take children 5 days old—yes 5 days—and assign a paraprofessional tutor to each. The paraprofessional works with several children a day under the supervision of a teacher. At age 2 the children go into groups, at 3 into nursery schools, and at age 4 into prekindergarten. Their average IQ at age 5 is 115, with some going as high as 135. Keep in mind, too, that these are black children in a Milwaukee slum taking the same biased white test we discussed earlier.

Black slum children show improvement even on culturally biased tests after Cradle School experience.

The cost of this program is about $2,000 per year per child. It seems useless to even attempt to finance such a system in a time of tight budgets and lowering revenue bases. But if I were superintendent, I would take the $500 in Title I funds due such a child, match it with the $1,000 due him from regular school funds (which he probably wouldn't use after ninth grade anyway because he has dropped out), and give him those first 4 valuable years in a Cradle School. If circumstances forced him to terminate his education at the ninth grade, he would be better off and more able to educate himself. Meanwhile, having taken both this child's and my own destiny in my hands by this move, I would join with other superintendents to try to secure state and local funding for Cradle Schools.

THE NEED FOR BILINGUAL PROGRAMS

☐ My final recommendations are in the area of bilingual education. A very large number of children in America speak two languages when they go to first grade. Sophisticated programs do exist in

A good program can avoid harming bicultural children.

Europe and Africa in which children move gradually along as truly fluent speakers and readers of two languages; they are common in Europe and Africa but almost unheard of in America. In many states, horror stories abound about punitive measures being utilized to stamp out one language in favor of the other, the "majority" language.

A few good models of two language programs exist in schools in the Louisiana Bayou country and in many systems in Texas and Arizona. Antonio Perez operates a fine two language Follow Through program in Corpus Christi, Texas. Significantly, the Louisiana programs have operated, it seems, since the advent of schools in French speaking parishes. No special classes or language specialists were needed because most teachers spoke two languages.

Many children who speak two languages are also inhabitants of two cultures. Sometimes the schools mangle these children through mindless and sometimes conscious callousness and insensitivity. David Ballesteros, Director of the Teacher Corps at the University of

Texas, outlined several aspects of a good program to avoid this kind of harm at a recent meeting on handicapped children sponsored by our Institute. They are as follows:

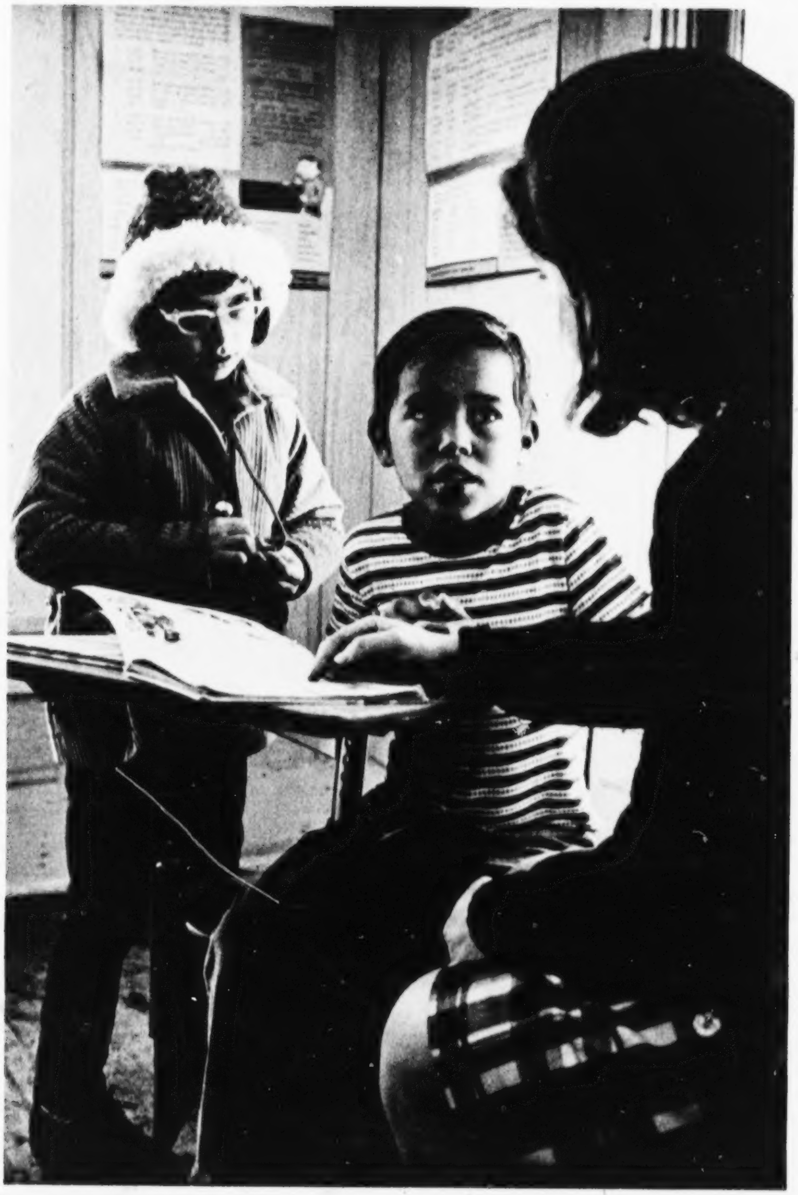
1. Hire and prepare a staff which understands and empathizes with children.
2. Learn Spanish. You expect children to learn English; meet them at their level.
3. Encourage the child; make him feel proud of what he is.
4. Provide cultural awareness for the school staff.
5. Reassess standards—they do not have to be lowered. Most standards were made for middle class Anglo America.
6. Seek research funds to make studies on personal characteristics of Spanish speaking students, particularly their attitudes, values, and feelings toward teacher, subjects, parents, Anglo students, and each other.
7. Provide services to the community; articulate with parents. Unless parents and school personnel become aware of each others' values and respect these values, conflicts will continue, with the child suffering the consequences.
8. Involve the community; work *with* the community, not for the community.
9. Make available in Spanish, as well as in English, notices, booklets, and other parental correspondence.
10. Promote cultural democracy; make it clear that all minority groups have a contribution, and that this country was built by many different ethnic groups.

TAKE THE INITIATIVE NOW!

☐ In closing, I might note that the mood of the country is such that further analysis and handwringing about problems in American education will not be tolerated. People want results and are beginning to wonder if school personnel are too timid or too inept to take bold steps where they are needed. It is my hope that the 70's will witness some of the improvements which I have cited here.

The public wants results . . . and will no longer tolerate analysis and handwringing.

III. program models and resource materials



implications of research with disadvantaged children for early intervention with the handicapped

merle b. karnes

Basic, critical questions face administrators and others responsible for developing educational programs for young handicapped children. How important is such a program? What kind of intervention is most effective? What is the most strategic age of intervention? How long should it last? Can paraprofessionals teach? In her presentation, Dr. Merle B. Karnes draws on her own and others' research in response.

Although research has not identified any one approach as being superior to any other, there are components of successful programs for young children that set them apart from unsuccessful ones. A successful classroom program for the handicapped would need to include all the components. The more problems the child presents, the more careful the educational planning must be.

Stacey
Landscaper

RESEARCH ON EARLY INTERVENTION

☐ The research on early intervention generally dates back to the middle sixties when the federal government made funds available to initiate programs (e.g., Head Start) and to conduct research with children from low income homes. It was felt that the ill effects of poverty on such important aspects of development as intellectual functioning, language, self-concept, motivation, health, and physical being, as well as the social and emotional domains, could best be combated through intervention during the preschool years. The two persons who seemed to have exerted the greatest influence on our thinking regarding the development of the intellect were Hunt (1961) who, in his book *Intelligence and Experience*, disclaimed the notion that intelligence is fixed, and Bloom (1964) who, in his book *Stability and Change in Human Characteristics*, contended that 50 percent of intellectual development occurs by the age of 4. Although the latter has been questioned, there is general consensus that the early years are critical in a child's development. To further reinforce this theory, Ausubel (1964) pointed out that the effects of early deprivation are cumulative and necessitate more drastic intervention the longer the deprivation persists. This thinking applies for the handicapped as well as the disadvantaged. Further, a study of the incidence of handicaps among the various socioeconomic levels reveals that there are more handicapped children among the poor than among the more affluent.

The early years are critical in a child's development.

The effects of early deprivation are cumulative and necessitate more drastic intervention the longer the deprivation persists.

DEVELOPMENT OF EARLY EDUCATION PROGRAMS

☐ Many of the findings of studies conducted with the disadvantaged populations have relevance for developing early educational programs for handicapped children. Having been a director of special education in a public school for a period of more than 10 years, I have some idea as to the kinds of information these administrators need and find helpful in initiating programs in their school systems. In fact, the kinds of questions I pursued in my own research were influenced in no small measure by the needs I identified in the field during the period while I served as a special education administrator. The answers to the following questions are based largely on studies that my associates and I have conducted at the University of Illinois Institute for Research on Exceptional Children. They are intended to provide those persons responsible for developing programs for young handicapped children with relevant knowledge to assist them in their planning and implementation of an appropriate program.

Six considerations assist program developers in their planning and implementation of an appropriate program.

1. Why is it important to provide an educational program for young handicapped children?
2. Will the child's development be jeopardized by employing paraprofessionals as teachers of young handicapped children?
3. What kind of intervention is the most effective?

4. What delivery systems can best be used in educating young handicapped children?
5. What is the most strategic age of intervention?
6. How long should intervention be continued?

Administrators of special education, as is true of other administrators in the public schools, are confronted with financial problems that prevent them from expanding programs and services for handicapped children. They may need to reorder their priorities and determine how best to utilize the limited financial resources available to them. It is hoped that they themselves will be convinced that early education should be given high priority. No matter how convinced a director is that early intervention for the handicapped is critical, he must sell the idea to his superintendent, school board, principals, advisory board, regular teachers, parents of the handicapped, and the general public.

Administrators of special education should give early education high priority.

EARLY PROGRAMING FOR YOUNG HANDICAPPED CHILDREN

☐ *Why is it important to provide an educational program for young handicapped children?* One of the best arguments for early programing is that it can eliminate many problems that may become entrenched if they persist into later years, thus reducing the necessity for placement in special classes or for special services. In other words, preschool education can be a preventive program for many children who are prone to need special education. For others, preschool education can enable the handicapped to function at a higher level than is possible without early intervention. In terms of financial consideration, as well as the promotion of fuller development of the potentials of a handicapped child, preschool education is a must.

Preschool education can be a preventive program for many who are prone to need special education.

INTERVENTION FOR LOW INCOME GROUPS

☐ It is a generally accepted fact that from 70 to 80 percent of children in special classes for the educable mentally handicapped across the country are from low income families (Karnes & Zehrbach, 1972a). This was certainly true in the program I directed. I was convinced that this need not be so if early intervention were provided for this group of children. To pursue this point of view, we conducted a study with low income children functioning in the retarded range (IQs 37-75) with a mean IQ of 66 (Karnes, Hodgins, & Teska, 1969d; Karnes, 1973). At the end of one year of intervention, using the approach I developed with my staff, the mean Binet IQ of the group improved to 87.5 (21 IQ point gain). Of the 15 children in this study, 13 made Binet IQ gains that placed them in the average range of intelligence. One child, at the end of the year, was in the slow learner range. The child with the 37 IQ was provided with a second year of intervention and at the end of that year obtained an IQ of 84. These results are more impressive when one is aware that most of this particular child's siblings were either in classes for the trainable or for the educable mentally retarded. Even

Most children in classes for the educable mentally handicapped are from low income families.

more remarkable is that he was functioning at a grade level in reading of 3.3 at the end of the first grade and at grade level in arithmetic. A followup study revealed that he was continuing to function in the mainstream at the end of the third grade. At the end of the third grade, all the other children in the study were all in regular classes.

The "Milwaukee Project" provided intervention for children from 3 months to 5 years of age.

A study that has recently received much attention is the "Milwaukee Project" conducted by Heber and Garber (1970). This project was initiated with 3 month old infants of mothers with low IQs (IQs below 70). The project provided intervention for these children through age 5. At 42 months of age there was a 33 IQ point difference between these infants and a comparable group of infants who were not provided with intervention. The experimental subjects maintained a Binet IQ of 120 over a 5 year period. The project represents the only longitudinal study to date that was initiated primarily to prevent mental retardation among disadvantaged infants. This study especially lends a great deal of credence to the belief that much of mental retardation can be prevented if intervention is provided during the early years.

Much of mental retardation can be prevented if intervention is provided during the early years.

Other researchers who have data to support the contention that mental retardation with children from low income homes can be prevented are Hodges, McCandless, and Spicker (1967) and Weikart, Deloria, Lawser, and Wiegerink (1970).

Still another argument for early intervention is that the school and family can combine forces early in the life of the handicapped child and together set common goals and objectives that will help him maximize his potential. Our research with mothers and siblings of disadvantaged children revealed that family members can acquire improved skills in stimulating the development of young children as reflected in the rate of development of the preschool child (Karnes, Studley, Wright, & Hodgins, 1968; Karnes, Teska, Hodgins, & Badger, 1970; and Karnes, Zehrbach, & Teska, 1971).

Family members can become skilled in stimulating the development of young children.

PARAPROFESSIONALS AS TEACHERS

☐ *Will the preschool child's development be jeopardized by employing paraprofessionals as teachers for young handicapped children?* Head Start advocates one adult for every five children. In our research with low income children, we adopted this ratio and employed an all professional staff during the first year of the project. It soon became apparent to me that one professional for every five children was financially prohibitive and that we had to test the feasibility of other staffing patterns. We investigated the effects of staffing one preschool class with low income mothers who had no formal education beyond high school and another class with 16 and 17 year old girls from the target area who were enrolled in the public schools in a work-study program because they were having difficulty academically (Karnes, Teska, & Hodgins, 1970).

Each of these classes was closely supervised by a professional teacher. The third class was taught by an all professional staff. The progress of children taught by a nonprofessional staff was comparable with the progress of children taught by an all professional staff. The ratio of one adult to five children was maintained in all three classes, and the Karnes Curriculum was implemented in all three classes. The results of a battery of tests (Binet Individual Intelligence Test, Illinois Test of Psycholinguistic Abilities, Frostig Developmental Test for Visual Perception, and Metropolitan Readiness Tests) revealed that classes taught by all paraprofessionals (adults and teenagers) made comparable gains to those children taught by an all professional staff.

The progress of children taught by a nonprofessional staff was comparable with the progress of children taught by an all professional staff.

Although the results did not reveal significant differences between the group of children taught by adult paraprofessionals and the group taught by the young teenagers, there were some qualitative differences as were delineated by the supervisory professional teachers in written evaluations of the paraprofessionals. Information revealed that the teenagers did not manifest as strong a commitment to the program as was manifested by the adult paraprofessionals. The attendance of the adults was superior; they were more receptive of criticism from their supervisor and were better able to objectively evaluate the progress made by the children they taught.

Another staffing possibility that special education administrators may wish to consider is that of using young teenagers (ages 12 to 16) to work in a preschool program. These are the children who are not old enough to be employed in industry but who often spend a great deal of time with their younger siblings. For three summers we had projects which entailed employing and training these young teenagers to use the Karnes Curriculum in tutoring their 3 and 4 year old brothers and sisters (Karnes et al., 1971). These programs were only 6 to 8 weeks in duration, but the children taught by the young teenagers made significant gains in intellectual functioning in two of the three summers (7 and 10 IQ point gains). From this limited data we felt that the young teenager could become a positive force in fostering the development of the younger child.

In recent years, with financial support from the Bureau of Education for the Handicapped to develop and disseminate a preschool program for multihandicapped children, we have effectively implemented the basic Karnes Curriculum, using one professional and two paraprofessional teachers for a class of 10 children. It is even more difficult for paraprofessionals to teach the multihandicapped than it is for them to teach the disadvantaged, but through inservice training we have found that paraprofessionals can develop the teaching skills necessary to effectively function in the

role of a teacher of children with a multiplicity of handicaps, using the approach we have developed.

The results obtained in the aforementioned study may not hold true with a different approach for educating the young child, but we feel reasonably sure that an approach which entails careful planning, written plans, attention to individual needs, daily inservice training, and close supervision by a professional can obtain similar results to those we obtained in our studies.

To provide an adequate adult-child ratio in a preschool program for handicapped children, there should be no hesitation in employing paraprofessionals. Care should be taken, however, to employ paraprofessionals who relate well with children, who are able to accept supervision and work as a member of a team, and who are stable and dependable. Adults seem to be somewhat more effective than teenagers; however, it must be kept in mind that the teenagers in the study were in a special program because they had learning problems. One might wish to consider employing or obtaining volunteers from such groups as future teachers.

WHAT INTERVENTION IS EFFECTIVE?

☐ *What kind of intervention is the most effective?* The effectiveness of various approaches to educating young children has been of concern to a number of researchers. The two most extensive investigations in this area are the follow through and planned variation studies financed by the federal government. The results of these studies are not as yet available in the literature.

FIVE INTERVENTION MODELS

We conducted a study with disadvantaged children initially 4 years of age which provides the most extensive comparative findings to date (Karnes, Hodgins, & Teska, 1969a; Karnes, Hodgins, & Teska, 1969c; Karnes, 1973). We chose five models to include in our comparisons, and controlled important variables such as sex, race, and intelligence in constituting the groups. One consideration in selecting the models was the degree of structure of the programs. We chose models ranging from the traditional nursery school model to a very highly structured preschool. The approaches we included in our study were as follows.

The K_2 program encouraged teachers to capitalize on opportunities to teach the child informally.

One model, the *Traditional* (K_2) nursery school program, was modeled after the Child Development Laboratory program at the University of Illinois in the Division of Child Development of the Department of Home Economics. I directed this program and encouraged the teachers to capitalize on opportunities to teach the children informally and to promote the personal, social, motor, and language development of the children. Large blocks of time were devoted to free play, both indoors and out. Music, art, and story periods were provided daily. All children in this class were from low income homes.

The second program was designated as a *Community-Integrated*

(C-I) program. Two to four disadvantaged children were admitted to existing preschools sponsored by community groups. These schools used an approach similar to the first mentioned program. However, the disadvantaged children were in classes made up primarily of middle and upper class Caucasian children, rather than a segregated class made up of all disadvantaged children. The hypothesis was that placement of disadvantaged children in such a preschool would enhance their opportunities to acquire language since they would not only have good adult language models but good peer language models also. Each center directed its own program.

In the Community-Integrated program, disadvantaged children were integrated with middle and upper class children to enhance language acquisition.

The *Montessori* program was directed by the Montessori society, and a prepared environment characterized this program. It was more structured that the two traditional models, but the structure was related to the way in which the child learned from his reaction to the materials rather than from his interaction with an adult. Activities engaged in during the half day session were spontaneous choice activities, music, stories, and games. A period was referred to as the "silence exercise."

The Montessori program's structure was related to the way in which the child learned from his reaction to the materials rather than his interaction with an adult.

The *Karnes* (K_1) program constituted the fourth approach along a continuum of structure. The curriculum used in this approach appears in the literature as the Ameliorative Curriculum. Since this label has been negatively interpreted as synonymous with a remedial program, the name has been abandoned and is now called the GOAL (Game Oriented Activities for Learning) Curriculum. This approach uses an instructional model, derived from the clinical model of the Illinois Test of Psycholinguistic Abilities (ITPA), to guide instruction and stress the acquisition of information processing skills. Since language is the greatest deficit among disadvantaged children, a curriculum with strong emphasis on language was deemed important. The curriculum is made up of eight components—language, mathematical concepts, science, social studies, art, music and movement, directed play, and creative and productive thinking. Using a game format, the children are taught in groups of five during three structured periods of 20 minutes duration (language, mathematical concepts, and social studies or science). Directed play, art, music, study, and snack periods constitute the remainder of the half day. The overriding goal of the program is to prepare the children for successful participation in a standard school curriculum. Subgroups involve the enhancement of such important considerations as social and emotional adjustment, physical development, motivation to learn, and self-concept. This approach stresses teaching the prerequisites for learning to read and for learning arithmetic.

The K_1 program used an instructional model derived from the ITPA to guide instruction and stress the acquisition of information processing skills.

The *Bereiter-Engelmann* (B-E) program (Bereiter & Engelmann, 1966) constituted the most highly structured of the five models. Intensive oral drill in verbal and logical patterns characterized this

The Bereiter-Engelmann program provided structured teaching periods.

program. The children were provided with three 20 minute structured periods in which language, arithmetic, and reading were taught. The child was taught a rule; he was then provided with instruction that entailed application of the rule. The initial teaching alphabet was used to teach reading.

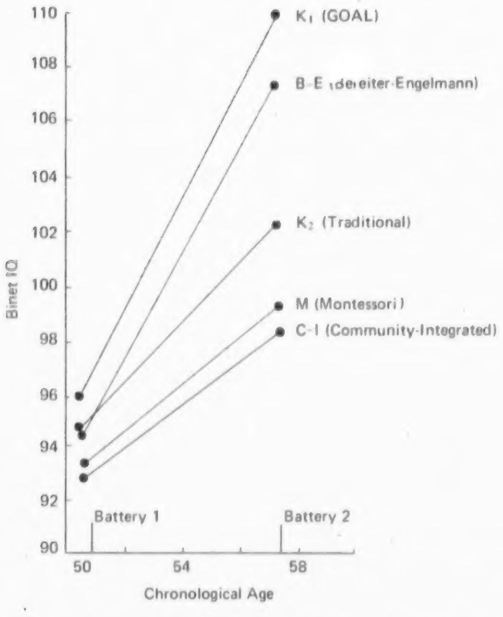
RESULTS OF INTERVENTION

☐ Briefly, I will summarize the results obtained on the Stanford-Binet Individual Intelligence Test Form L-M and the Illinois Test of Psycholinguistic Abilities at the end of one year of intervention. First, let us consider the results on the Binet. Figure 1 presents IQ gains over a one year period.

On the Binet, the largest gains in IQ were produced by the highly structured programs, the K_1 and the Bereiter-Engelmann.

Inspection of Figure 1 reveals that the participants of the two highly structured programs which entail a high degree of adult-child verbal interaction made the largest IQ gains (14 points) over a 7 to 8 month period. None of the children in the Karnes GOAL program (K_1) or Bereiter-Engelmann (B-E) program failed to gain in IQ. In

Figure 1. Stanford Binet IQ—Five Groups for One Year



Note: The times of the two batteries were plotted at the mean Binet chronological age of the five groups.

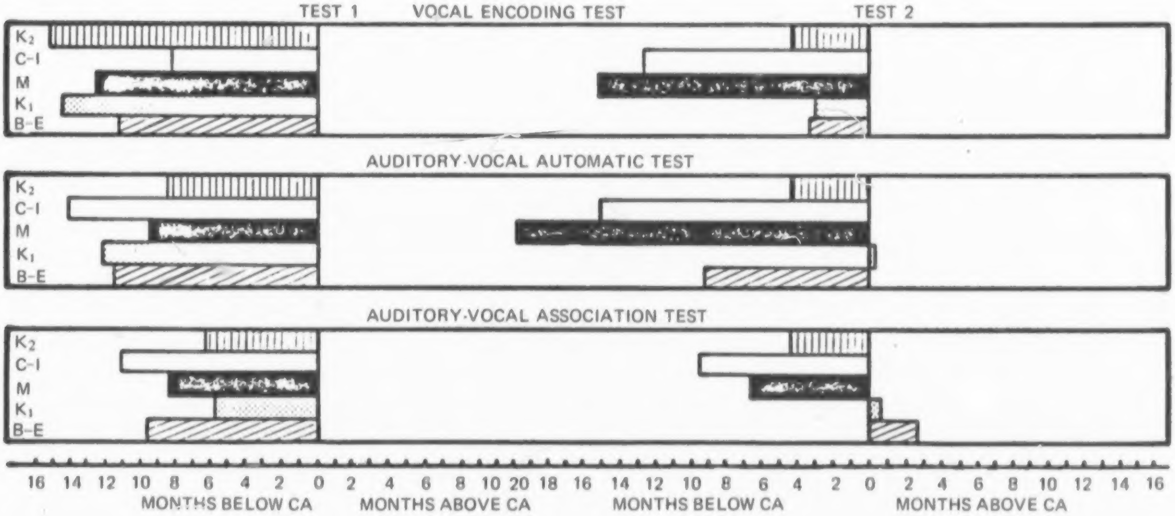
addition, 92 percent of the children in the K_1 program and 74 percent of the children in the B-E program fell in the above average strata of intelligence. Both of these programs produced significantly greater IQ gains than the Community-Integrated (C-I) and Montessori models whose children gained only 5 IQ points. The children in the Karnes directed traditional program (K_2) gained 8 IQ points. Fifteen to 24 percent of the children enrolled in the K_2 traditional, Community-Integrated, and Montessori programs regressed.

The three areas of greatest deficit on the ITPA were the subtests related to verbal expression skills.

Initial tests on the ITPA identified the three areas of greatest deficit among the disadvantaged population included in this study to be Vocal Encoding (verbal expression), Auditory-Vocal Automatic (grammar), and Auditory-Vocal Association—the subtests related to verbal expression skills. Figure 2 presents this information. Language age is subtracted from chronological age and presented in graph form. If a child is functioning 6 months below chronological age (CA) on a subtest, it is interpreted as his having a deficit in that area.

The children were assigned to groups on the basis of IQ rather than on ITPA data; thus, you can see that the groups varied on initial ITPA functioning. You will note that the children in the K_2 traditional program were essentially 15 months retarded on the vocal

Figure 2. Difference Score Means for the Three ITPA Subtests



encoding test. On Test 2 at the end of the 7 to 8 month interval, the group no longer had a deficit in vocal encoding. If you look at the data on the Community-Integrated program, however, you will note that initially they had an 8 month deficit, and that after one year of intervention the deficit became more serious (the retardation was 13 months, or 5 months greater). The same pattern holds true with the children in the Montessori program. The children in the K_1 GOAL program made the greatest gains of the five groups and were no longer considered as having a deficit in vocal encoding at the end of the 7 to 8 month intervention interval. The children in the B-E group made comparable gains to the children in the K_1 program.

Now let us examine the data on the Auditory-Vocal Automatic subtests of the ITPA. The children in the K_1 GOAL program progressed to the point of functioning above CA. The children in my K_2 traditional program made the next greatest gains and were only 5 months retarded in language, as compared to the initial retardation of 8 months. Initially, the children in the Montessori program were 8 months retarded, but at the second testing they were 20 months retarded. The Community-Integrated children were likewise more retarded at the end of one year of intervention than they were at the time they entered the program. Unlike the children in the K_1 program, the B-E children continued to have a deficit as measured by the Auditory-Vocal Automatic subtest.

An inspection of the data on the Auditory-Vocal Association test indicates that the K_1 and B-E groups were functioning above CA on Test 2, the children in K_2 traditional were still 5 months below CA in language development, and the C-I and Montessori groups continued to have a deficit in this area of language.

The major guideline derived from these data is that when you want a child to learn something, a deliberate effort has to be made to teach him.

How can these findings be used to help administrators select a program for young handicapped? As simple as it may seem, the major guideline derived from these data is that when you want a child to learn something, a deliberate effort has to be made to teach him what you want him to learn. Teachers in B-E, K_1, and K_2 were well aware that the greatest deficit of the disadvantaged is in the area of language. The B-E and K_1 teachers developed specific language curricula which they consistently followed in their teaching. The teachers of K_2 had the results of the ITPA and knew the strengths and weaknesses of each child. They deliberately taught language in an informal setting. Children in the Montessori program were encouraged to be silent. They had little or no opportunity to practice language. Observations of the C-I program indicated that the disadvantaged children in this program were on the fringes of group activities and had little verbal interaction with adults or other children. Thus, it is not sufficient to have good language models; to progress in language a child must have many opportunities to acquire language through practice. There is a logical explanation as to why the B-E children continued to have a deficit in the Auditory-Vocal Automatic area: the teachers do not stress grammar in their language curriculum. Thus, again, if you want a child to learn something, you must teach him.

In selecting a program, it is not enough to learn how the children performed at the termination of the intervention program. The gains made during preschool, as reflected in the child's functioning when he enters school, are even more important. We have some data on the achievement of the children in the three of the five programs (B-E, K_1, and K_2) included in our comparison study (Karnes et al., 1969a) which yielded the best results during one year of intervention. Since reading is so important to other school learning, the California Reading Achievement Test was administered to these children during the seventh month of Grade 3. Figure 3 presents the grade placement of the children in the three groups.

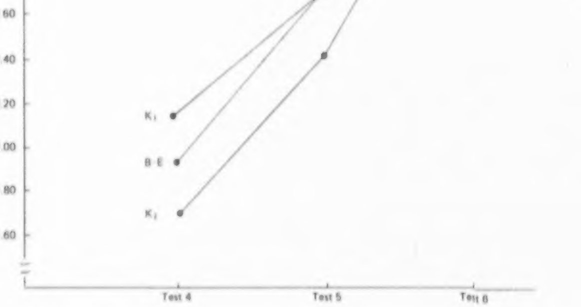
The children in the K_1 program were slightly above grade level in reading at the end of the third grade, and significantly superior to the children who had been in the K_2 traditional and Bereiter-Engelmann preschools. The two latter groups were about 2 months

To progress in language a child must have many opportunities to acquire language through practice.

The gains made during preschool are more important in selecting a program.

One explanation for the superiority of the K_1 children is the program's greater emphases on divergent responses and on teaching for transfer of learning.

Figure 3. California Achievement Test—Total Reading Grade Placement Scores



below grade level. It is felt that one explanation for the superiority of the K_1 children is this program's greater emphases on divergent responses and on teaching for transfer of learning.

It is interesting to recall that the children in the B-E program were initiated into formal reading at age 4, while the children in the K_1 program were taught the prerequisites of reading. Despite the early introduction of reading in the B-E group, the K_1 children at the end of the third grade were significantly superior in reading to the B-E children. These data do not provide support for the teaching of reading to disadvantaged preschool children.

WEIKART'S COMPARATIVE STUDY

☐ In a comparative study made by Weikart (1972), further data were obtained which administrators would find helpful in their planning. He reports on a study involving functionally mentally retarded children enrolled in three curricular models: (a) a unit based program, similar to the K_2 traditional approach, (b) a Piaget based curriculum developed with his staff, which is characterized by "verbal bombardment" and sociodramatic play, and (c) a curriculum using the language training derived from the Bereiter-Engelmann program. The important finding of Weikart's study was this: there were no significant differences found among these three groups with the Binet (17.6 to 24.4 IQ points gain for the 3 year olds, and 27.5 to 30.2 for the 4 year olds), the Leiter International Performance Scale, the Peabody Picture Vocabulary Test, and classroom teacher ratings. Weikart's explanation for the lack of differences among the three programs is that the staff model and program operation were the same in all three programs, and these components are more important considerations in promoting the growth of the children than differences in the curriculum. In other words, he feels that it is the application of the curriculum rather than the specific curriculum that makes the difference.

There were no significant differences found among three curricular models.

Weikart feels that it is the application of the curriculum rather than the specific curriculum that makes the difference.

Most studies have found that structured, cognitively based programs have the greatest impact on the intellectual functioning of children.

Contrary to Weikart's findings, most studies comparing structured programs with a traditional model have found that structured, cognitively based programs with an emphasis on language development have the greatest impact on the intellectual functioning and academic progress of the children (Karnes et al., 1969c; Clasen, Spear, & Tomaro, 1969; DiLorenzo, Salter, & Brady, 1969; Edwards & Stern, 1969; Van de Riet, V., & Van de Riet, H., 1969).

SUCCESSFUL PROGRAM CHARACTERISTICS

☐ It is clear that there is no one program that has been found to be superior to all others. Even the open classroom that is so popular today has not been rigorously tested on a research basis and found to be superior to all other approaches. Programs that seem to be the most successful, however, are those which have the following characteristics.

1. A carefully defined approach for teaching young children, with a strong theoretical orientation.
2. A mode of operation which includes daily allotments of time for continuous inservice training, curriculum development, daily planning and critiquing of instruction, a high adult-child ratio (one to five), and supervision.
3. A curriculum for the children which attends to individual needs and fosters the development of (a) cognitive language, (b) motivation to learn, (c) self-concept, (d) social skills, (f) motor skills, and (g) information processing.

In other words, a good program concerns itself with the total development of the child. Other important considerations of successful programs seem to be: feedback directed to the child as to the appropriateness of his responses, reinforcement of learnings, provisions for repetition and overlearning, and concern for helping the child transfer learnings. Consideration must also be given to providing appropriate instructional materials and equipment to carry out the intent of the program. Involvement of the family in the education of the young child is also felt to be a component of a successful program.

Consideration must also be given to providing appropriate instructional materials . . . and involvement of the family.

It would seem that any successful classroom program for the handicapped would need to include all of these components. The more problems the child presents, the more careful the educational planning must be to insure his development.

DELIVERING SERVICES TO CHILDREN

☐ *What delivery systems can be used in educating young handicapped children?* Generally, we think of a classroom as being the site for educating children. In recent years we have found that there are other ways of delivering services to children.

One delivery service that we tested and found viable operated through the mother. In one project we trained disadvantaged mothers to stimulate the development of their 3 and 4 year old children who were not enrolled in a preschool. These mothers met for 2 hours weekly with professional staff and made educational games for their children, learned songs and fingerplays, and checked out books and toys from the toy lending library to use with their children at home. Demonstrations by the professional staff and roleplaying by the mothers fostered the mothers' acquisition of improved teaching skills. In addition, they discussed problems of concern to them in rearing their children. In an 11 week period these children gained 7 IQ points on the Binet, while a comparable group of children whose mothers did not receive training remained essentially unchanged. On the ITPA the experimental children made significantly greater gains than the control children.

One delivery service that we tested and found viable operated through the mother.

I directed another study involving the training of mothers to more effectively teach their infants in the home (Karnes, Teska, Hodgins, & Badger, 1970). The general structure of this program was similar to the one mentioned previously. Over a 2 year period these infants scored 16 points higher on the Binet than did comparable controls whose mothers received no training.

The above studies strongly endorse a plan for involving the mother in implementing a program at home. For young handicapped children in sparsely populated or rural areas it may be a very workable plan. Professionals can go to the home on a weekly or biweekly basis to train and supervise the instructional program implemented by the mother. As has been suggested by previous research, paraprofessionals can also be trained to work with mothers who are implementing the program at home. It would seem advisable, on the basis of our experience, that paraprofessionals be closely supervised by a professional. Levenstein (1971) used paraprofessionals to deliver her program to mothers in the home and found that the progress of these children compared favorably to the progress of children whose mothers were trained by professionals.

Paraprofessionals can also be trained to work with mothers who are implementing the program at home.

In our model project for the multihandicapped, family members are involved in teaching in the classroom as well as in the home (Karnes, Zehrbach, & Teska, 1972; Karnes & Zehrbach, 1972b). This involvement even enhances the opportunities for family members to become better teachers of their handicapped child at home. Thus, a plan whereby parents deliver services in the home concurrent to the educational program provided the child in the school setting would appear to be a primary plan for helping the handicapped child develop his potential to the fullest. A project which we have used successfully is to have a lesson plan written for parents to accompany the lesson plan implemented in the school.

Involvement in the classroom enhances the opportunities for family members to become better teachers of their handicapped child at home.

HOW EARLY SHOULD INTERVENTION BE INITIATED?

☐ *What is the most strategic age for intervention?* A number of researchers have been seeking the answer to the question, "How early should intervention be initiated?" To date we do not have the data to conclusively answer this question. We initiated our program with disadvantaged children at age 3 and at age 4, and our findings do not endorse the earlier intervention (Karnes, Hodgins, & Teska, 1969). A study by Nimnicht, Meier, and McAfee (1967) obtained similar findings. Weikart et al. (1970) found that his 3 year old children made only slightly greater gains than those who entered his program at 4 years of age. Gray and Klaus' (1969) study intervening at age 3 and at age 4 showed a gain for those children of 25 IQ points, while the older children gained only 3 points.

Despite the lack of agreement on the most strategic age for intervention, it seems the earlier we intervene with handicapped children, the better.

Despite the lack of agreement on the most strategic age for intervention, it seems safe to say that the earlier we intervene with handicapped children, the better. Early intervention involving the parents and other family members should enhance the handicapped child's chances for developing his potential.

LENGTH OF INTERVENTION

☐ *How long should intervention be continued?* There is general agreement that one year is not sufficient to stabilize gains, as was indicated by the report of the Westinghouse Learning Corporation (Cicirelli, 1969). This study investigated the effects of Head Start experience on children's cognitive and affective development and found that those gains made during Head Start attendance were lost soon after the children entered the public school.

Gains made during Head Start attendance were lost soon after the children entered the public school.

On the basis of the Heber and Garber (1970) study, a longitudinal study which was initiated with infants of 3 months and which provided these children with continuous programing over a 5 year period, it would seem advisable to identify the handicapped child as early as possible, in infancy when feasible. Heber and his associates found that the infants they studied maintained a mean Binet IQ score of 120 through year 5. It would seem, therefore, that early intervention and continuous programing are of paramount importance.

Early intervention and continuous programing are of paramount importance.

Although there have been several research based programs that seem to have held up over time as far as the academic achievement of the children is concerned—Karnes' GOAL Program and the Bereiter-Engelmann Program (Karnes, 1973), and the Weikart et al. (1970) cognitive program—even though the intervention was for only one to 2 years, these programs might have demonstrated even better results if they had been continued for a longer period of time.

☐ This chapter has attempted to draw upon research to answer a few of the critical questions posed by administrators and other persons responsible for the early education of the handicapped. One of the major arguments for early education is that the more serious handicaps can be prevented by intervening at an early age; this is especially true of high risk children who are likely to function in the mentally retarded range. Handicapped children can be helped to function at a higher level if preschool programing is made available to them.

Research findings indicate that paraprofessionals can be used as teachers of young children without jeopardizing the progress of the children. In fact, if they are closely supervised by a professional, the progress of the children will be comparable to that achieved by an all professional staff.

Research has not identified any one approach to educating young children as being superior to any other, but there are some components of successful programs that set them apart from unsuccessful ones. Some of these components include a commitment of the staff to a given approach, a high adult-child ratio (one to three for handicapped children), concurrent inservice training, careful planning (including written lesson plans), attention to individual differences, strong emphasis on language development and cognition, involvement of staff in curriculum development, broadly based curricula which foster the development of the total child, family involvement, and appropriate instructional materials and equipment. These components should be carefully weighed when developing programs for young handicapped children.

There are a number of options available for delivering services to handicapped children other than by professional teachers in a classroom situation. Professionals and paraprofessionals can train mothers to teach their own children in the home setting. A combination of a classroom program for a portion of the day or week with instruction by family members at home may be another option.

While the most strategic age for intervention has not been conclusively determined, there seems to be agreement that the earlier the handicapped child is identified and provided a program, the better his chances are for actualizing his potential. Once the handicapped child is identified and a program is provided, special intervention should continue until it has been demonstrated that the child can function adequately in the mainstream of the public school without special services. Even then followup should be built into the planning.

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involvement and training of parent- and citizen-workers in early education for the handicapped

"Built in consumer satisfaction" found in a model combining technology, accountability, human warmth and permanent staffing is being accomplished in the Tennessee Regional Intervention Program for preschool education of the handicapped under the direction of Dr. John P. Ora. By using a few special educators as trainers and resource personnel in a program managed, implemented, and evaluated by parents and citizen volunteers, it is possible to deliver an inexpensive, comprehensive, and individualized program to handicapped children and their families.

john p. ora

VOLUNTEER INVOLVEMENT IN PRESCHOOL EDUCATION

☐ In the past 5 years we have seen a tremendous amount of discussion in various fields about the idea of involving parents, volunteers, and diverse kinds of paraprofessionals in social action programs. One can flatly state that prior to 1969, parent and citizen involvement in preschool service programs for the handicapped was very slight, and the reason for this is clear. Simply, there were few such programs. By 1972, however, preschool education for the handicapped had moved ahead of other fields in its citizen involvement dimension.

Preschool education of the handicapped has moved ahead of other fields in its citizen involvement dimension.

One of the reasons for the ready implementation of parent involvement was that directors of demonstration projects, given the support of the Early Education Assistance Act, were obligated to draw on exemplary aspects of related fields, and they happened to have the advantage of a great lode of previous work in early education to draw on. They had models to build on. For example, a project serving multiply handicapped preschoolers in a large rural area in Portage, Wisconsin went at once to the primary use of home visiting teachers to train parents to teach the children. With such a foundation to build on, the Wisconsin project could devote energy to improving the model by focusing on teaching parents to measure and report activities in line with specific behavioral objectives.

Preschool education for the handicapped is ahead of many social action fields in its *respected practice* in the dimension of involving citizen workers. Yet the actual extent of involvement of citizen workers in preschool education for the handicapped varies greatly from one program to another, usually as a joint function of agency purpose and organizational structure. With regard to agency purpose, some programs are designed to develop or demonstrate particular procedures rather than programs. For these purposes, the matter of involving citizens may be peripheral.

Agency purpose and structure determine the extent of citizen worker involvement.

As for organizational structure, I believe that in most instances the extent of citizen participation is predetermined by the type of organization involved. For example, an official bureaucratic structure with its divisional, rule regulated hierarchy can place parents or other volunteers in positions of authority only with great difficulty. Only by accident do the citizens have the necessary officially required qualifications, such as education, job experience, certification, and time in grade, to fill administrative positions.

Parents and volunteers seldom have officially required qualifications for administrative positions.

When both purpose and organization are taken into account, it may be possible to predict the extent and type of use of citizens. For example, the Portage, Wisconsin project mentioned above is based in the public schools and targeted on a scattered rural population. Until recently, the professional organization taught the families, who in turn taught the children. In contrast, an inner city project, also based in the public schools, brings its children into classrooms. The

standard educational bureaucratic structure, which in this case is virtually impossible to change, simply has little place for parents in a classroom and no immediate reason to use them.

This suspicion is supported by the exciting work being done at Juniper Gardens, Kansas. There, in a ghetto housing project, Bushell, Hall, Risley, and other investigators supported by research funds, and therefore relatively flexible, are for existential purposes quietly training a whole community, including the parents of those preschoolers with handicaps. Data are still limited and the emphasis tends to be on researching various aspects and procedures of the overall system rather than on demonstrating the system itself.

An exciting project in the ghetto trains the whole community.

Thus, variability in actual involvement of citizens exists and can be accounted for at least by speculation. In general, few if any of these social action programs are actually run by members of the population served. The results also vary, in part for reasons I shall touch on later.

Few social action programs are actually run by the members of the population served.

The point I am making, though, is that preschool education of the handicapped has moved rapidly ahead of other social action fields, such as mental health, in its respected practices. There may well be, for example, programs that make weekly home visits to rural populations and do something with the children while ignoring the parents. Even though making the home visits at all would be a step ahead of most mental health agencies, such a program would be little respected by those concerned with early education for the handicapped.

REGIONAL INTERVENTION PROGRAM

☐ Early education for the handicapped has also moved ahead of other fields in its *exemplary practice* in regard to the use of parents and citizens. One model, the Regional Intervention Program (RIP) in Nashville, Tennessee, is officially described as follows:

"A social experiment in which an agency of the people, the Tennessee Department of Mental Health, in cooperation with Peabody College and the Nashville Junior League, provides the citizens of the state with a permanent organizational structure, with support for that structure, and with continuity of information within that structure, but the citizens themselves implement the organization to provide services to their children to their own satisfaction."

Essentially, in the Regional Intervention Program a few special educators and a clerk function as middle management, resource personnel in a system completely implemented by parents and volunteers. The resource persons' responsibilities are described in systems terms. For example, one educator is responsible for all activities that focus on individual children. Another is responsible for all activities that focus on groups of children. The educators adopt a conventional or "hands on" teaching posture in regard to a child only for purposes of modeling or demonstration, and only then in the very rare event that a parent who can do it as well or better is not around.

SPECIAL EDUCATORS AS MIDDLE MANAGEMENT

The goal is to have all levels of the project responsive to data feedback on progress.

☐ Some mention of recent activities should convey the flavor of these resource jobs. For the past 6 months Peggy Hester, Vince Parrish, and Jody Ray at RIP have spent most of their discretionary time on management by objectives. Their goal is to have, by June 30, 1972, all levels of the project, from each child up through top management, responsive to the data feedback on progress toward objectives. The text that they are using is Reddin's *Effective Management by Objectives.* The book that they and the parent coordinators of the various training activities have liked the most is Mager and Pipe's *Analyzing Performance Problems or 'you really oughta wanna'.* The book they cite most often is Jerome Frank's *Persuasion and Healing* and the book they liked least, but

nonetheless persist with, is Ferster and Perrott's *Behavior Principles.*

Because of the need for continuity of diverse information, the information processing task force of two stenographers headed by the project's clerk handles the collection, storage, retrieval, and transmission of information, especially any information that would usually be considered administrative in nature. With that exception, all operations from intake through followup are conducted by parents and volunteers. These operations are all measurement based and are all designed to teach the parents how to implement the system as they learn how to help their children.

Operations are designed to teach parents how to implement the system as they learn how to help their children.

RIP is grouped into task forces, each coordinated by a trained parent. It should be emphasized that the program objectives for families and children do not stop with some arbitrarily defined educational aspect of the child's problem. The system delivers

comprehensive social services that range from routine parent to parent emotional support for all families, to finding food, clothing, housing, or jobs as needed. The various documents transferring the project over from Peabody College as a permanent state service specifically prohibit the project from refusing responsibility for finding help for any problem of the families served.

VERTICAL STRUCTURE FOR ACCOUNTABILITY

☐ So far I have referred to the project's systems at the middle management level and at the operations level. As a demonstration, it may have its most profound effect because of its vertical structure, which is designed to ensure accountability. The resource educators or middle managers report to a Citizen Evaluation Committee, at least one half of whom are parents. Other members serve at these parents' invitation. They are not an advisory group.

By administrative authorization, the Evaluation Committee holds line authority in the bureaucratic structure. Meeting at least monthly, the Committee may request information from the resource personnel, evaluate it, and render a binding opinion regarding the adequacy of the information and of the program results. Thus far the Committee has chosen to use a mix of standard questions, such as a routine request for evidence of interobserver agreement on data recorded, and questions specific to the activity under examination. The basic questions to be asked are communicated well in advance of the meeting date. The resource personnel are responsible for demonstrating adequate program results to the Committee, usually in terms of measured child and family progress. Although the Committee often comments on input variables, or the activities used, they attempt to confine their examination to output measures.

The minutes and comments on the Committee's meetings are the basis of monitoring by the Department of Mental Health.

The Committee in turn sends a monthly report of the minutes and comments of its meeting to the Coordinator, Preschool Programs Branch, Division of Children and Youth Services, Department of Mental Health. The Coordinator's office has already seen that such a system permits extremely close and politically astute monitoring of a large number of programs with minimum administrative overhead and it is encouraging the use of the same system in replication projects.

CITIZEN INVOLVEMENT IMPROVES SERVICE

☐ Thus, preschool education for the handicapped has moved ahead of any other social action field, in terms of its exemplary practices in the dimension of parent and citizen involvement. It is likely to stay ahead. The Wisconsin Project is, I believe, moving to train nonprofessionals as trainers. In St. Louis, Lois Blackwell has put a project for autistic children on a private basis, drawing on the RIP organizational patterns. The Louisiana Department of Mental Health is struggling to find a way to mount a parent implemented preschool program. Pennsylvania was administratively committed to start pilot work on such a program this September, a step taken, by the way, before the recent mandatory special education ruling.

These developments are important for several reasons, none of which are fundamental, but which are nonetheless significant because they constitute immediate improvements in the present strained system. First, parent implemented systems offer "built in consumer satisfaction" at a time of widespread discontent with all educational services as well as with other government services. Second, they offer improved services over professionally implemented models. For example, given that someone has to keep in mind the exact state of successive approximation for hundreds of individual behaviors to efficiently train a child with a deficient behavioral repertoire, and given the limited contact a professional can have with the child in actual practice, the mother can usually do a better job.

Parent implemented systems offer built in consumer satisfaction.

Third, in a parent implemented system, the parents, especially the mothers, can offer one another a tremendous amount of group support and encouragement. They report that such support is superior to that offered by professionals, often because, for example, the professional in most circumstances can only begin to help cope with feelings of isolation that disappear after introduction to other parents with similar problems. Fourth, parent implemented systems or systems that involve parents are important because they pose a partial solution to the manpower problem in the helping professions. This fourth reason, relating to manpower, approaches the fundamental reason for the importance of involvement of parents and citizens.

The parents can offer one another a tremendous amount of group support and eliminate feelings of isolation.

Parent implemented systems are a partial solution to the manpower problem.

RELIEF FOR A STRAINED SYSTEM

□ When referring to the present system of preschool education, I used the word "strained." All the service and maintenance systems in our society are strained. On every side we have various constituencies stating needs in terms that usually involve the phrase "if we only had . . ." to show what they could do with more resources. The problem is by no means peculiar to special education. In fact, the soaring costs and service inadequacies of medical care attract the most public attention, possibly because the maintenance rather than simply the quality of life is often at stake.

All service and maintenance systems could do with more resources.

Perhaps the most considered analysis of the problem has been made in regard to higher education. You may recall that the Carnegie study and other analyses have pinpointed the basic problem in higher education as an essentially flat productivity curve. That is, in a technical society with a general increase in manhour productivity on the order of 6 percent per year, higher education, which has little technology, has made essentially no productivity gains. Thus, as living standards rise and real compensation rises to workers in the society in general, higher education is caught in a rising cost situation

with no compensating increases in productivity to offset costs. Hence there is never enough income or support.

I argue that the same analysis applies to early education, but with the crucial difference that there is a clear way out of the problem—the use of parents and other citizen workers combined with fairly simple automated instructional systems that will result in increased manhour productivity.

The citizen worker brings enthusiasm, energy, and warmth vital for the slow progress of handicapped children.

The citizen worker, usually female, brings to her task very commendable and invaluable enthusiasm, optimism, energy, compassion, and human warmth. These elements are particularly vital in systems that must work against the painstakingly slow progress often encountered with handicapped children. With these assets citizen workers often accomplish what a professional might judge to be impossible. At the same time, channeling such energies and properly directing such vital assets is a chronic management problem, particularly in a completely citizen implemented system in which information flows from parent to parent and there is planned turnover among those responsible for information transmission.

TECHNOLOGY AND THE CITIZEN WORKER

The citizen worker relies on technology for correct information.

□ Fortunately, unlike some professionals, the citizen worker invariably views any automated instructional system as a way of making her job easier and doing it better. With no income or status to defend, she does not view technology as a threat. Rather she tends to rely on it gladly because she can be sure that the information being transmitted is what was intended. She does not have to worry about distorting its message.

Thus we have the ability to implement technology, to increase productivity in preschool education for the handicapped, and thereby to attack the basic problem in the field. The professional can analyze a particular situation and develop an automated instructional system. The system can thereafter be used by a parent or other citizen to train others like herself while she adds the unteachable warmth and compassion that the system will never have. Meanwhile, the professional can be automating something else, and productivity rises.

Let me cite a specific example in order to allay any objections centering on depersonalization or propagandizing. In the Regional Intervention Program all the parents must know how to take data in order to preserve the program's measurement base. We have always trained mothers to train others to do this and consequently we have somewhat increased the productivity of the resource personnel. When the trainers leave, however, or even when new resource personnel are added as supposedly "trained" teachers, higher level personnel must take the time to complete others' training. We spend a great deal of energy on this constant task, although the data systems we use are standard throughout the program, and any of several audio visual instructional approaches could probably teach them more efficiently, and in some instances more effectively. Thereafter any mother who has been checked out as interpersonally supportive and as a reliable rater and competent grapher could teach everyone. The system would pay for itself in a couple of months at the outside. The mother's individual attention would guard against depersonalization. The data systems themselves are designed for flexibility within a simple format. They say little about what should be measured. Thus the production of such automated instructional systems in one program places no constraints on their utility in another program that might have different objectives.

Individual attention guards against depersonalization.

IMPLICATIONS FOR TEACHER TRAINING

☐ Having made what I regard as an almost totally unrecognized but fundamentally important point on productivity, let me turn briefly to some of its implications for the training of teachers. As I have implied throughout, teachers in a parent implemented system, or even in one that involves parents, must be more middle managers and organizers of personnel and technology than traditional, pretechnological, do it yourself educators. Measurement procedures, elementary systems analysis, management by objectives, and use of automated instructional systems are some of the content areas they must know in addition to the usual content areas of their specialty.

Teachers must know measurement, management, and automation content areas as well as their specialties.

I am presently attempting to bring in a group of industrial engineers to conduct a task analysis of the activities of our resource personnel, such that the performance requirements described will constitute the output requirements, with precise measures, for a university training program. If the knowledge required exceeds that which is usually conveyed in a year or less, I will argue that personnel should be trained exclusively for specific areas of traditional content, such as preschool, or even for specific programs, so that they can receive the necessary training in management sciences. Such specialization usually accompanies the increases in complexity that in turn accompany increases in technology. Provided human warmth and common sense are not forgotten, I believe that about the last thing most severely handicapped preschoolers need is to be placed in the care of a generally trained humanist, however desirable such persons may be in other fields in education.

Training many more teachers than we are presently in preschool education for the handicapped is not economically feasible.

Clearly, I am arguing for some radical changes in the use of preschool educators and in their education. If we are to act in time, that is, before our social resources give way under the expense of archaic approaches to complex problems, we will have to make an even more radical shift in allocation of resources. Perhaps because I have been officed at Peabody, I hear an enormous amount about teacher training. I believe that training many more teachers in preschool education for the handicapped is simply not economically feasible. Instead we must recognize that increases in productivity require capital investment as well as people trained to use the resulting technology. Resources must be allocated to the production of automated instructional systems based on sophisticated analyses performed by persons skilled in the various specialties of management science. Both analysis and production are expensive tooling up processes.

A SOLUTION TO THE PRODUCTIVITY CRISIS

A solution is to develop automated instructional systems that can not only train but also can be used by citizen workers.

☐ In conclusion, I have stated inductively the following argument. Together with the other social services, preschool education for the handicapped suffers from a basic productivity crisis. A solution is to develop automated instructional systems that can not only train, but which can also be used by parents and other citizen workers. Educators will have to organize and support these workers by functioning as middle management, preferably accountable to other citizens. In order to equip educators to thus increase their productivity, changes in their training are required as well as changes in resource allocation. I am pessimistic on the latter point because of the difficulties involved in showing resource allocators why tool up monies are needed when they are also confronted with demands for immediate service. The opportunity to present these opinions to an audience as influential as the Invisible College is, however, somewhat heartening.

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an early childhood education center with a developmental approach

william j. meyer

In his presentation, Dr. William J. Meyer outlined the general strategy he and his colleagues are using to conduct observational research in an early childhood day care program. The procedures include extensive observations of the children's behaviors, longitudinal analyses of the data, and development of measurement instruments and classroom materials.

Dr. Meyer emphasized the need to delineate the cognitive competencies of a child and match the cognitive demands of the primary grades to these competencies.

IDENTIFICATION OF EVALUATION NEEDS

☐ In our work at the Syracuse University Early Childhood Education Center (SUECEC), we have identified three attributes which seem crucial for meaningful program evaluation and planning:

1. There is a need to reexamine the instruments used for assessing the aptitudes of children and achievement outcomes, and these instruments must be process oriented.
2. Observational research in the naturalistic setting which emphasizes the individual child's encounters is crucial.
3. Indices of cognitive functioning must be related to behaviors in the naturalistic setting, and these relationships must be examined for individuals over time.

This work will provide teachers with the knowledge to identify process variations without having to rely on "tests." In addition, the data will provide teachers from the preschool with clues as to how to proceed with the child.

We need a better understanding of levels of cognitive functioning.

We believe that this work must also extend into the primary grades because we need a better understanding of the changes in levels of cognitive functioning that occur in this important period. In order to evaluate the outcome of the preschool or day care programs, one must be able to delineate the cognitive competencies of the child when in the primary grades and to relate these to his experiences in the primary grades. We are particularly concerned that in a typical elementary school, children are not viewed from a developmental point of view and that a considerable degree of damage can occur to the child, regardless of the success of the preschool or day care program, unless an effort is made to match the cognitive demands of the primary grades to the cognitive competencies of the child.

DAY CARE PROGRAM

☐ The Early Childhood Education Center is involved in a day care program for children between the ages of 3 and 6 years. At the present time, approximately 20 of the 40 children had been previously involved in a day care program (The Children's Center Program) from the age of approximately 6 months to 36 months. The Children's Center Program initially was developed by Dr. Bettye Caldwell and is now under the direction of Dr. Ronald Lally. Eventually our program will be expanded in size and will accommodate all "graduates" of Dr. Lally's program.

My purpose in describing our current program is not only to provide you with information about our setting, but also to emphasize the rather unique opportunities available for an extensive program evaluation involving longitudinal data. The children we receive at the Day Care Center arrive with extensive background information, including prenatal data, general medical information, and detailed reports of their early cognitive development. The work on assessing cognitive development involves Piagetian tasks, as well as

Assessing cognitive development involves Piagetian tasks.

other kinds of age appropriate indices, and is consistent with the theoretical orientation of our program directed by Dr. Margaret Lay and with the assessment procedures we are attempting to develop. Briefly, the Day Care Program (Lay, 1972) provides the children with a relatively free environment that involves three major activity areas:

1. A task area comprised mainly of table activities where the children are expected to be relatively quiet.
2. An expressive area (painting, dress up corner, clay, etc.) where more noise and fewer restrictions are expected.
3. An active area in which noise and active physical movement is permitted.

The program provides three major activity areas.

In addition, there are invitational activities of various kinds, but the children are free to accept or reject an invitation.

In a very real sense, our program is an effort to operationalize Hunt's (1961) "match-mismatch" hypothesis, where it is assumed that children become involved in those activities where the cognitive and social demands are consistent with the child's competencies. The theoretical conceptualizations for both program planning and evaluation are consistent with those expressed by Kohlberg (1968) and Flavell and Wohlwill (1969). Specifically, with respect to evaluation, our thinking has been influenced by Wohlwill (1970) and Bereiter (1962). Summarizing these major sources of input, our program evaluation and planning strategies encompass the following features:

Children become involved in those activities where the cognitive and social demands are consistent with competencies.

1. Extensive (monthly) observations of the children's behaviors in the day care environment.
2. Longitudinal analyses of the observation data and other assessment procedures emphasizing the individual child.
3. The development of instruments which index *processes* as opposed to the use of instruments which are diffuse and less well defined in content.
4. The development of classroom materials and procedures which emphasize *processes* as opposed to products.
5. The integration of objectives 2, 3, and 4, with objective 1 providing a test of our major theoretical formulations, an extensive description of the actual program each child experienced and how it is hoped these experiences covary with child characteristics, and a set of reasonably objective "marker" behaviors that can be used by others with recommendations for modifying specific aspects of the environment in ways that are compatible with the child's competencies.

OBSERVATIONS OF BEHAVIORS

□ The observation schedule (see Figure 1) provides in detail the behaviors which are of concern to us. There are three basic classifications: (a) the frequency with which the children use the various task areas, (b) the frequency and quality of the children's social

Figure 1. Codes for Observations of Children: Initial Format

A. Location. Observer indicates where S is in program setting.
   1. Active
   2. Expressive
   3. Task
   4. Outdoors
   5. Invitational room # 1
   6. Invitational room # 2
   7. Rest
   8. Snack, lunch
   9. Other (lavatory, hallway, etc.)

B. One - 10 names of female children
C. One - 10 names of female children
D. One - three names of female children

Observer indicates those with whom S has verbal, gestural, tactile contact.

E. One - seven names of male children
F. One - 10 names of male children

Observer indicates those with whom S has verbal, gestural, tactile contact.

G. Kind of interaction
   1. Verbal
   2. Gestural
   3. Tactile
   4. Visual

H. One - 10 names of staff/adults
I. One - two names of staff/adults

Observer indicates those with whom S has verbal, gestural, tactile contact.

J. Staff/adults
   1. Male visitor
   2. Female visitor
   3. Self (observer)
   4.-9. Student teachers' names

Observer indicates those with whom S has verbal, gestural, tactile contact.

K. Kind of interaction
L. Language use: tells what he's doing
M. Language use: indicates wants
N. Language use: tells others what to do
O. Language use: asks help
P. Language use: asks permission
Q. Language use: asks how to do
R. Language use: asks for name

interactions with both peers and adults, and (c) the frequency of the children's use of language, as opposed to gestures, etc., to communicate.

Initially, we viewed these codes as representing our objectives. We were hopeful the children would be increasingly attracted to the task area, that their social interactions would become more frequent and positive in affect, and that the children would use language as their major form of communication, especially the form of question asking behavior. Our position with respect to items *b* and *c* has not changed, but there is now some uncertainty about the first objective. Specifically, we now suspect that children can gain in level of cognitive competency without a corresponding increase in their use of the task area. The question is still open, however, and further data analyses are now underway. It may be that our initial formulation was not wrong but perhaps too narrow. For example, one analysis indicates that the older children, in general, make greater use of the area. There is also evidence to suggest that, among the older children, those who perform better on our indices of cognitive competency spend more time in the task area. It should be noted that this question has forced us to attack the very difficult problem of assessing the quality of the children's performance in all three of the areas.

Children gain in cognitive competency without an increase in task area use.

I shall describe only the highlights of our observational study. The first conclusion is that despite whatever rubric we use to describe our program—currently it is called a "reactive environment" there is actually a great deal of variation in the nature of the program for individuals.

Table 1 shows the means and standard deviations for the use of the various areas. Clearly, the children prefer the active area, with the expressive and task areas following in that order. Boys use the active area more than girls, girls use the expressive area more than boys, and there are no sex differences with respect to the task area. The frequency of verbal interactions with peers increases over time, and the

Table 1. Means and Standard Deviations on Location in Each of the Six Areas

	Oct-Nov		Dec-Jan		Feb-March		Apr -May		7 Mo.Tot.	
	M	SD	M	SD	M	SD	M	SD	M	SD
Active	33.6	9.9	34.3	12.5	39.9	14.1	33.6	11.1	35.7	9.1
Expressive	20.4	10.0	21.3	7.8	15.2	8.1	15.7	6.6	18.2	5.6
Task	13.0	8.6	12.1	8.7	12.7	9.2	9.0	8.9	11.2	6.2
Snack	12.3	7.0	12.6	7.0	8.8	5.5	8.0	5.8	10.2	4.7
Invitational	3.9	5.2	5.4	3.3	8.9	6.3	11.6	6.6	8.2	2.7
Outdoors	7.3	6.4	4.8	4.3	5.6	5.6	19.8	7.0	10.4	4.1

quality of these interactions improves substantially. There were no sex differences. Finally, there was some increase in the frequency of question asking behavior, but not to the degree anticipated.

The observation schedule provides data about achievement of objectives.

One aspect of this work needs to be stressed. A frequent criticism of evaluation research is that either it is irrelevant to the stated goals of the program, or it contributes little or nothing to program planning. These are all too often valid criticisms, but in this case, neither is valid. First, the observation schedule provides direct data about the achievement of objectives and, second, the data can be (and were) used to make modifications in both materials available to the children and in the quality of invitational activities made available to specific children. Despite the incredible logistics problems involved in this work, not to mention costs, the data base now available permits us to understand the properties of our program and the children.

LONGITUDINAL ANALYSIS

Our objective is to relate behavioral change to initial behavioral and cognitive characteristics.

☐ This aspect of our strategy is very much in the infant stage. The report by Lay and Meyer (1971) provides some information about the changes over time of the total group, but our objective is to attempt to relate behavioral change to the initial behavioral characteristics of the children and to certain of their cognitive characteristics. Specifically, our objective here is to focus on the behavioral patterns of individual children over time. Briefly, our procedure will involve the use of cross lagged panel correlations (Holtzman, 1962) which provide information on the degree to which behaviors at various points relate to behaviors at an earlier point in time. These analyses will be run on the observational data where 40 time points will be identified.

COGNITIVE COMPETENCY SCALE

☐ The development of this instrument is a major undertaking at our Center and is proving to be a very difficult task with respect to the measurement problems encountered. There are three problems of immediate concern:

1. Identifying the salient cognitive processes.
2. Developing a sufficiently large population of items.
3. Demonstrating that the scales reliably classify the children.

What are the salient cognitive processes?

The first problem is exemplified in a variety of intelligence tests where various levels of cognitive demands are blended in unknown ways (Meyer & Goldstein, 1969). But, neither available theory nor methods presumably related to process are very helpful. The various conservation tasks which we are using appear to require several competencies, but they are difficult to identify. They may prove useful, however, in determining if children rely on perceptual cues (Piaget, 1947), if they can perform transformations, and if they are able to verbalize their cognitive manipulations (this last attribute may not be viewed as critical, depending on how you view the relationship between language and cognition).

The second problem is not so much one of developing items, but rather determining the optimal number of items that can be used before the children become bored or begin to learn. The third problem is closely related to the second because, as everyone knows, reliability is a function of test length. There is, however, an implicit position taken in the third item. Specifically, our objective is to make reliable binary decisions: a child is a conserver or he is not. This strategy, you will recognize, is different from traditional tests which attempt to answer the question of "how much?" and not the question "does he?"

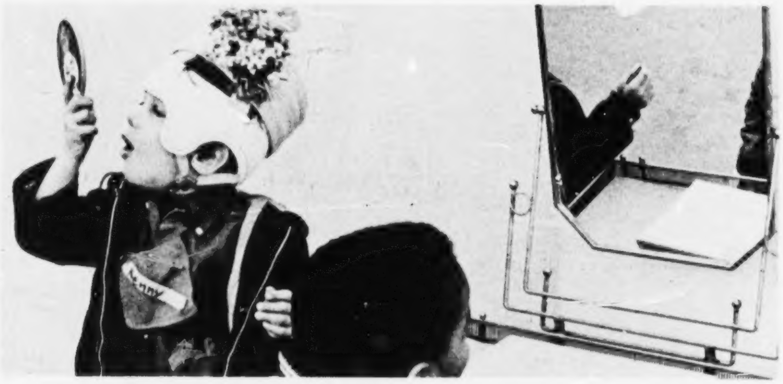
MAJOR TASKS

□ Three major tasks are being used: a Classification Task developed by Sigel (Sigel, Anderson, & Shapiro, 1966), Conservation Tasks (the procedures for these tasks were developed by Dr. Vernon Hall at our Center), and the Raven Coloured Progressive Matrices (RCPM) (Raven, 1956).

The Classification Task involves 12 objects familiar to children (top, ball, matches, etc.) which are presented in both object form and pictorial form (life sized color photographs). Each object (picture) is presented, and the child is asked to select other objects (pictures) that go with it and to explain the basis of classification. The use of pictures and objects with the same child is to determine the child's ability to cope with representations. Responses are coded in terms of whether the child uses perceptual properties (form, color), functional categories, or class inclusive categories (see Meyer, 1971, for a detailed report of the procedures and results).

I shall briefly report a study using 108 middle class children tested at IV-2 and again at IV-11. Three findings are of interest:

1. There was a statistically significant difference in the classification scores for objects as opposed to pictures on the pretest, which was not found on the posttest 9 months later.
2. On the pretest there was a significant order effect where it was found that when objects were presented first for classification, there was a significant effect on performance with pictures, but when pictures were presented first, there was no effect on the performance with the objects. This effect was not found 9 months later.
3. On the pretest, the primary basis for the children's classifications were perceptual (form, color, etc.), and with respect to form and color, the children used form slightly more than color. On the posttest, the predominant basis of classification was form, with a significant increase in the number of classifications that were categorized as "functional" (objects grouped together because of some functional relationship among them).



There was no evidence that children were able to classify on the basis of broad, inclusive categories.

There was no evidence that the children were able to classify on the basis of broader, more inclusive categories. The findings are consistent with Sigel's (1968) "distancing hypothesis" which states that there is a developmental trend in the direction of children becoming better able to cope with representations in comparison with actual objects. Another finding of interest is the fact that there was no improvement in the children's ability to correctly label the objects on the pre- and posttest. This finding suggests that mere labeling does not guarantee that the child has an abstract representation of the features of the object.

CONSERVATION TASKS

□ I shall now comment on Conservation Task data. A detailed description of the procedure used in administering the scales is available from the Center. I will focus on a sample of 45 middle class children who are currently in the first grade and who were tested in the month of December with the conservation tasks. These data are important because they provide some indication of the stability of the conservation tasks and point toward the reliability of classification problems alluded to earlier in this paper.

A total of 45 children were administered the task and then were retested within 10 days. Although the scales generate either 4 or 5 points, we decided, on theoretical grounds, that a child had to get all the items correct in order to be a conserver. Any score below a perfect one was not considered to differentiate among children; that is, on a scale from 0-5, a child with a score of 4 was not considered to be in any particular way better than a child with a score of 0 or 1. It is our position that within the Piagetian framework, this is a more defensible position than the one taken by Goldsmith and Bentler (1968), who while talking about conservers and nonconservers nevertheless treat their scales as continuous.

Evaluation of the data indicated a problem in classifying the children on the basis of one administration of the task. There is a general trend for all three tasks for the children to improve on the second administration; and in the case of length, nine children became conservers; in the case of mass, five children became conservers; and in the case of weight, seven children became conservers on the retest.

These data suggest one of two possibilities: (a) our assumption of noncontinuity is, in fact, not valid, or (b) inadvertently some learning occurred on the pretest. In order to determine more precisely what happened, we are examining our procedures carefully to determine if the children were receiving feedback.

RAVEN PROGRESSIVE MATRICES

□ The Raven Coloured Progressive Matrices (RCPM) was administered to the same first grade middle class children as were used in the conservation study. The children were given scales *A*, *Ab*, and *B* and were readministered the test within 10 days.

A test-retest reliability was .80, indicating a reasonably high overall stability of behavior. However, an examination of the reliabilities of the individual scales (*A*, *Ab*, *B*) suggested that although the overall score remained relatively constant, performance within scales shifted significantly.

These data, along with the correlations, suggested the possibility that the two administrations of the task somehow interacted with subject characteristics. An initial exploration of the data suggested that children who used a consistent strategy in answering each of the items, where consistency was defined in terms of the use of the same strategy on four or more occasions on both administrations of the task, may have improved more on the posttest. Detailed statistical data on this study and related studies is available from the Center.

DEVELOPMENT OF CLASSROOM MATERIALS

□ The development of the competency scales has little meaning until the indices are related to more achievement oriented indices. Here again, there is general dissatisfaction with prevailing achievement test measures because of their diffuseness with respect to process demands (see Ginsburg, 1972, for an excellent discussion of the issues). Instead of relying exclusively on standardized tests, we are attempting to develop tasks which teachers can use not only for interesting learning exercise but also to ascertain, on their own, whether or how a child is processing the demands of the tasks. A TV tape is now being edited which shows, among other things, the variations in children's performance characteristics on a puzzle solving task and a balance scale problem. Specifically, the tape attempts to show the importance of looking at the strategies the child employs while working on the problems (whether successful or not), to sensitize teachers to the nuances of the child's behaviors, such as his eye movements, and finally to demonstrate that when a task is overly demanding, the child's main desire is to escape.

A TV tape shows variations in performance.

Are there truly variations in reading programs' cognitive demands?

Also, a student of mine and I are trying to analyze the cognitive demands of the various reading programs to ascertain first if there is truly variation among them, and, given that there is variation, to ascertain the major cognitive demands. Concurrent with this essentially armchair speculation, we are also developing tasks to assess children's strategies in deciphering new words.

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child development/ day care resources project— new materials to aid day care programs

ronald k. parker

Over 200 national experts were involved in developing resources to help ensure quality day care programs for the nation. A review of day care resources on training and staff development, programs, and curricular and resource materials, by Ronald K. Parker, revealed a need to provide a national structure for interdisciplinary child development projects and broad scale delivery systems.

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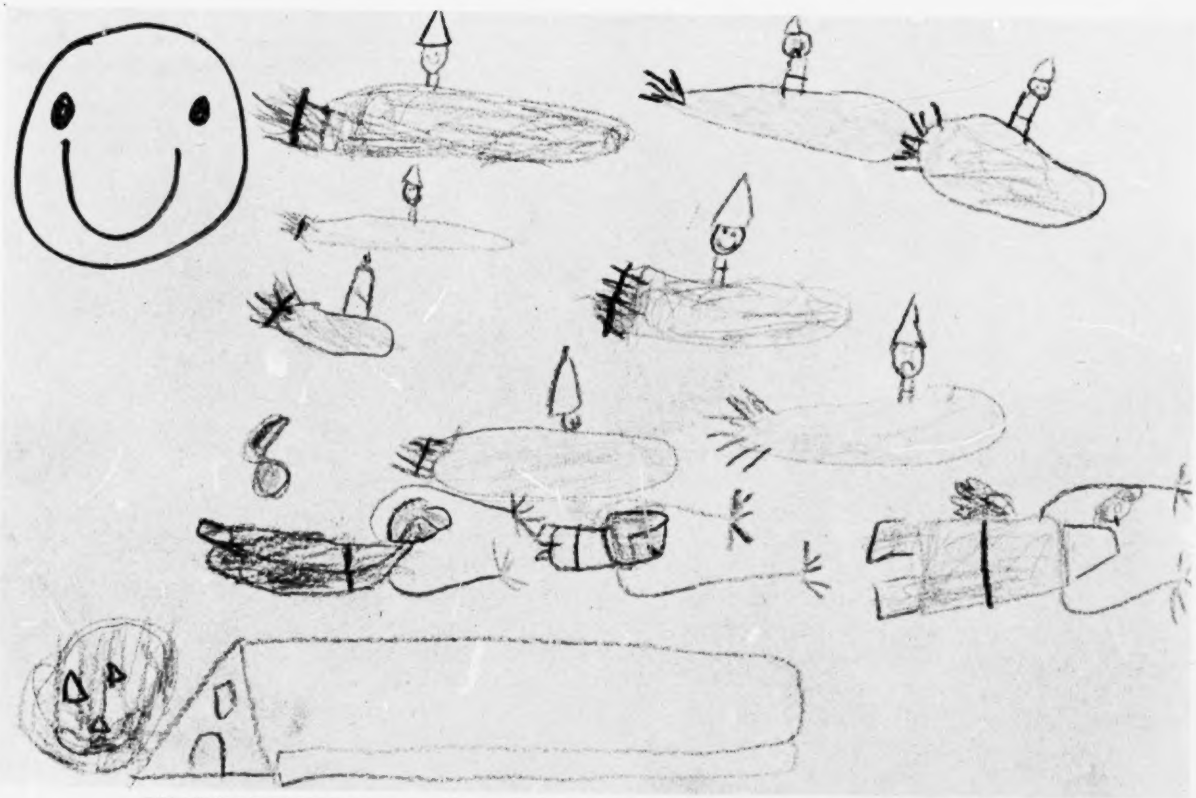

THE IMPORTANCE OF ADEQUATE PREPARATION

☐ One of the problems with large scale federal programs is that they often appear full blown without the necessary background work having been done. In the human resources area, the results of such a lack of preparation can be disastrous—not only in terms of wasting funds but, more importantly, of also failing to mount good programs for social betterment. If we take Head Start as an example, it is easy to see in retrospect that a better program would have been inaugurated in 1965 if more careful planning had been done prior to the appropriation of operational funds. Unfortunately, the end result of inadequate preparation can be that many potentially good human resource programs go through a fatal three stage cycle: (a) they are started too hastily and so do not rest on solid foundations, (b) subsequent evaluations reveal—sometimes too late—that they are seriously lacking in a number of important respects, and (c) as a consequence, the nation becomes disillusioned, and the programs lose the crucial support of the federal government.

Ill prepared programs are often found lacking, and ultimately lose public and governmental support.

A PROJECT TO INVESTIGATE DAY CARE SERVICES

☐ Recognizing that day care would probably expand at a very rapid rate during the present decade, the Office of Economic Opportunity and the Office of Child Development in June, 1970, agreed to fund a project (Grant H 9708) with the avowed purpose of summarizing everything known about how to provide good day care services for children of all ages. The rationale for this decision was a desire to avoid the launching of yet another huge federal program in the human resources area in which the necessary previous steps in planning and preparation had not been satisfactorily worked out. In fact, as early as August, 1969, the original impetus for what was eventually to become this jointly backed venture was given by the education committee of the President's Science Advisory Committee in a recommendation to the President that the above type of undertaking be carried out on a relatively small scale. Additional impetus was supplied by the fact that several pieces of federal legislation were pending which, if passed, would provide millions of dollars for day care programs. The one thing lacking was the availability of child development and day care resources to ensure that program operators could take advantage of current knowledge before day care expanded nationally.

The Child Development/Day Care Resources Project represented a major step by the federal government to ensure this. The government's aim in funding the project was twofold: (a) to use nonfederal talent in developing a series of materials demonstrating quality day care programs and (b) to make these materials available to those persons affected by a rapid expansion of day care in the United States.

FOUR MAJOR OBJECTIVES

□ The Child Development/Day Care Resources Project, directed by Ronald K. Parker, had the following objectives:

1. To develop a statement of principles that can serve as a useful guideline to the operation of day care programs.
2. To develop a set of handbooks that describe the features common to good child development and education programs for use in day care and to include effective curriculum models from current practice.
3. To develop an additional set of handbooks that deal with day care administration, parent involvement, health services, and training.
4. To modify current resources in child development, early education, and day care in order to help improve existing programs and to aid in the spread of good day care services throughout the nation.

These day care resources were developed to aid program operators both within and outside the context of day care settings. In a word, practical resources were developed for parents and professionals interested in child development. Finally, the principles underlying these resources make them applicable to all children, including those from various socioeconomic backgrounds and children with various degrees of special problems. These materials then should be of special importance to the membership of The Council for Exceptional Children.

The project resources were produced by three groups: consultants at a summer workshop, experts in curriculum development working on subcontracts, and the full time staff of the project. The project resources may be classified into the following categories: principles statement,[1] handbooks,[1] child development resources,[2] and reviews.[2]

[1] Available from the US Government Printing Office, Washington, D. C. 20402.

[2] Available from the individual authors.

A principles statement was to serve as guideline.

A *Statement of Principles* was prepared under the chairmanship of Urie Brofenbrenner for presentation to the 1970 White House Conference on Children. The contents of this document can be summarized as follows:

- The basic needs of the child (health and nutrition, security, freedom, structure, compassion, developmental differences, challenge).
- The implications of needs for programing (knowledge of child development, comprehensiveness, health care, cognitive development, esteem for self and others, freedom within structure, identification of children with special problems, importance of parental involvement, importance of familiar people, role of older children in the development of the young, programs appropriate to older children, family day care programs).
- Economic and social change (child development services as a right, day care and the industrial world, continuity with the child's cultural background, program control, the role of the community, day care as a social institution).
- Administration (the "open" day care setting, diversity in programs, coordination, physical facilities and equipment, selection of personnel, training).

Handbooks were developed to detail the features of good day care programs . . .

Seven handbooks[3] were written to help program operators provide high quality day care. Three of the handbooks were on the subject of child development and dealt, respectively, with the fields of infancy, preschool, and school age. Each handbook presents the salient features of good program practice with a strong emphasis on how to put these good features into practice. The preschool handbook included a second volume profiling effective program models that can either be adopted in their entirety or adapted by child development personnel to local needs. The three handbooks are: *Child Development/Day Care: Serving Infants* (Huntington, D. S., Provence, S., & Parker, R. K. [Eds.], 1971), *Child Development/Day Care: Serving Preschool Children* (Parker, R. K., & Ambron, S. R. [Eds.], Vols. I & II, 1972), *Child Development/Day Care: Serving School Age Children* (Cohen, D., Parker, R. K., Host, M. S., & Richards, C. [Eds.], 1972).

The other four handbooks were on the subjects of training, administration, parental involvement, and health. They include: *Child Development/Day Care: Staff Training* (Parker, R. K., &

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[3] *Child Development/Day Care: Serving Special Children* was added to this series in 1972 by the Office of Child Development.

Dittmann, L. [Eds.], 1972), *Child Development/Day Care: Administration* (Host, M. S., & Heller, P. B. [Eds.], 1972), *Parent Participation in Day Care: Principles and Programs* (Hoffman, D., Jordan, J., Moore, B., & McCormick, F. [Eds.], 1971),[4] and *Child Development/Day Care Health Services: A Guide for Project Directors and Health Personnel* (North, A. F., Jr. [Ed.], 1972).

The project engendered child development resources to aid in the improvement of existing programs and to expand new services.

More than two dozen monographs, books, manuals, and curricula were developed to meet the fourth objective of the project: "to modify current resources in child development, early education, and day care in order to improve existing programs and to aid in the spread of good day care services throughout the nation."

Day care resources may be classified into three areas: (a) training and staff development, (b) day care programs and curricula, and (c) day care resource materials.

Infancy.

Infancy. Irving Lazar of Cornell University completed a lengthy manual which had been written in draft form prior to the inception of this project. Appearing under the title of *An Infant Care Training Manual,* it includes the general information on various facets of training caregivers.

Alice S. Honig and J. Ronald Lally of Syracuse University developed a manual which capitalized on the work done in the Huntington, Provence, and Parker infancy handbook and in Lazar's infant care training manual. The unique contribution of the Honig & Lally publication, entitled *Infancy Caregiving: A Training Handbook,* is that it offers infant caregivers a single theoretical framework (Piagetian) within which to operate.

Preschool.

Preschool. Ronald K. Parker edited a series of over 70 booklets to be used in day care and staff development programs. The series as a whole appears under the title of *Day Care Staff Development and Training Program.*[5] Each booklet is about 1,000 words in length, focusing on a single topic in child development and written at a high school English level.

William C. Sheppard, Steven B. Shank, and Darla Wilson of the University of Oregon wrote a manual, *How to Be a Good Teacher,* designed to meet a special need—namely, helping teachers to understand the principles of learning and the modification of behavior.

Merle Karnes, University of Illinois, prepared a monograph entitled *How to Implement the Karnes Curriculum,* within the context of a preschool day care setting.

Shari Nedler, University of Texas, produced the following three monographs designed to help train day care operators and early childhood educators: *Behavioral Objectives: Instructor's Manual, Creating a Learning Environment,* and *Teacher Expectations.*

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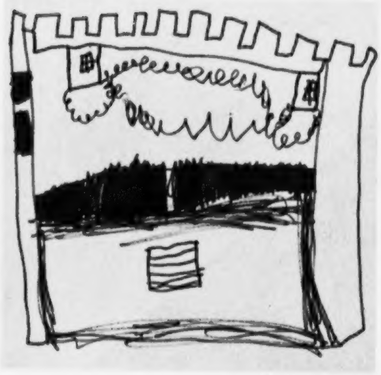
[4] Available only from Avatar Press, P. O. Box 7727, Atlanta, Georgia 30309.

[5] Available from Curriculum Development, 144 W. 125 Street, New York, New York 10027.

Family Day Care.

Family Day Care. Esther Cole, New York City Day Care Council, served as editor and coordinator of *The New York City Family Day Care Careers Program Manual.* The manual recounts not only what happened to this program, but how it happened. In so doing, it covers the following topics: history; administrative structure and funding; work of the policy advisory committee; homefinding, licensing, and supervision; job development and training (for career mothers); health and education; and evaluation and research.

Day care programs and curricula



Subcontracts were awarded to program developers who, in the judgment of the advisory committee, had developed effective program/curriculum models even though their materials were not yet ready for national distribution. The explicit purpose of the subcontracts was to make these resources available more quickly to everyone who could use them. In the typical case, many years and large sums of money had already gone into the development of such material; however, with the impetus of a project subcontract, the developer was enabled to write up a detailed description of his program/curriculum for almost immediate use.

A qualifying statement should be made here. The rationale for the awarding of subcontracts was not that the programs involved were necessarily considered to have the best ongoing curricula. Actually, many good programs were available for national distribution when this project was initiated. Rather, the purpose was to bring apparently effective programs that were in an ongoing stage to quick fruition. This may also help to explain why other programs of equal merit were not chosen for subcontracting. Simply stated, they were not yet in a state to be written up in final form at the time when project subcontracts were awarded.

Infancy.

Infancy. Earl S. Schaefer, University of North Carolina, and Father Paul H. Furfey, Catholic University, received the necessary support to detail their program for infancy, *Infant Curriculum: Ages One to Three.*

In *A Day Care Instructor's Manual and Preschool Training Curriculum,* Francis H. Palmer, State University of New York at Stony Brook, developed a cognitive curriculum for 2 and 3 year old children.

Preschool.

Preschool. Barbara Biber, Edna Shapiro, David Wickens, and Elizabeth Gilkeson have described one aspect of the Bank Street approach to early education in a monograph entitled *Promoting Cognitive Growth from a Developmental-Interaction Point of View.*

Robert P. Boger, Michigan State University, provided two publications on child development and education—the first dealing with classification, the second with socialization: *The Adaptation of Classification and Attention Training Lessons for Day Care Programming* and *The Adaptation of Socialization Inputs for Day Care Programming (Parts I and II).*

In a monograph entitled *The Use of the Black Experience by the Day Care Center: Enhancing Individual and Family Functioning,* Manuel L. Jackson (Chicago, Illinois) described how the "black experience" can be used productively by a day care center with respect to the child as well as to his parents.

Merle B. Karnes' products describe all facets of the Karnes curriculum developed at the University of Illinois in Champaign. These publications cover the fields of art, cognitive (Guilford) activities, language, mathematics, music, directed play, science, and social studies.

In a publication entitled *The Mother-Child Program,* Phyllis Levenstein (30 Albany Avenue, Freeport, New York 11520) modified her parent involvement program so that it would be better suited for use in day care.

Shari Nedler, University of Texas, described the Southwest Educational Development Laboratory's curriculum in a volume entitled *All about the Early Childhood Program.*

Glen P. Nimnicht and his colleagues—Edna Brown, Stan Johnson, and Bertha Addison—at the Far West Laboratory for Educational Research and Development described a program for parent involvement in *The Parent/Child Toy-Lending Library.* Its content included a large sampling of games, toys, and equipment.

Herbert A. Sprigle, Jacksonville, Florida, received project support that enabled him to extend his Learning to Learn Program downward to meet the needs of younger children. His publication was entitled *Discovering How to Learn.*

School Age.

School Age. The following two publications describe approaches to school age day care: *Proposal for Work-Oriented Program for School Age Children* by William Van der Does and *A School Age Day Care Activity Program for Five-to Ten-Year Old Children* by Docia C. Zavitkovsky.

Audiovisual.

Resource materials

Audiovisual. Ira J. Gordon, University of Florida, produced four videotape prototypes of training operations which demonstrate ways to teach a paraprofessional to train surrogate mothers using presently existing curricula. The tape series is entitled *Infant Education in a Family Day Care Home: Some Prototypes.*

Frank S. Joseph and Robert Clayton (Children's Hospital, Washington, D. C.) developed for audiovisual presentation three series of tape cassettes with accompanying scripts on health care for various ages in a day care setting. The length is approximately 20 minutes each.

Shari Nedler produced three filmstrips with accompanying audiotapes which were designed to implement her early childhood program. They are *Behavioral Objectives–Early Childhood* (9 minutes), *Environment for Learning* (15 minutes), and *Two and After* (20 minutes).

Research for Better Schools, Inc. of Philadelphia developed a slide and tape presentation entitled *Child Care Outlook for the Seventies,* which presents an overview of future day care needs in this country and some of the avenues open to program developers and operators for meeting these needs.

Reviews.

Reviews. Bettye M. Caldwell, University of Arkansas, produced a monograph which reviews on a nationwide basis current standards for day care. It is entitled *Day Care Standards: A National Survey.*

In *Day Care and Intervention Programs for Infants,* Marshall M. Haith reviewed and critiqued all of the infant day care programs currently in operation. His publication served as background work for the Infant Committee of the summer workshop.[6]

Jennifer Howse, Florida State University, surveyed how mobile facilities can be used in preschool instruction. The basic purpose of her publication, *Preschool Instruction in Mobile Facilities: Description and Analysis,*[7] was to suggest the means for delivering day care to isolated rural children.

Robert E. LaCrosse, Jr., Pacific Oaks College, wrote a monograph to provide HEW/OCD with a frame of reference on day care. Entitled *Day Care: Effects and Affects,* his report focused on program accountability and cost/benefit factors.

Ronald K. Parker and Jane Knitzer prepared a comprehensive publication for the White House Conference on Children. Entitled *Day Care and Preschool Services: Trends in the Nineteen-Sixties and Issues for the Nineteen-Seventies,*[8] it focused on the following subjects:

1. An Assessment — past and current practice (rationale for an early childhood focus), child care arrangements, day care and preschool capacity, enrollment patterns, caste and class, quality of existing programs and models, the role of the US government.

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[6] Available from Avatar Press, P. O. Box 7727, Atlanta, Georgia 30309.

[7] Available only from Southeastern Educational Laboratory, 1750 Old Springhouse Lane, Atlanta, Georgia 30341.

[8] Available from Avatar Press, P. O. Box 7727, Atlanta, Georgia 30309.

2. Planning for the Seventies — issues and options (child care services: for whom?), financing child care service, the question of auspices, the challenge of quality, coordination and linkage.
3. Summary and Conclusions—agenda for the seventies.

Texts.

Texts. Bettye M. Caldwell, University of Arkansas, received partial project support for the preparation of two texts on child care. They are *Educational Day Care for Infants and Young Children* and *Readings on Day Care.*

Stanley Coopersmith, University of California, Davis, compiled and edited a collection of articles that were written especially for this project. It is entitled *The Affective Component in Early Education: Developing Motivation in Young Children.*

A number of action recommendations should be given high priority by the federal government in its ventures into the field of child development and day care. These recommendations apply to three interrelated areas of need—programs and components, training and delivery systems, and a national institute of child development.

PROGRAMS AND COMPONENTS

□ After an indepth survey of current practices in day care, the project leaders identified two key areas where developmental efforts should take place as soon as possible. First, high quality school age day care programs are almost nonexistent in this country. Funds should therefore be supplied to create a fresh approach to this particular area of day care which goes well beyond the custodial or recreational thrust usually associated with such efforts. Second, the Minority/Parent Committee sensitized the summer workshop to the need for, and importance of, ethnic components as an integral part of day care programs. The development of these components offers the surest guarantee that minority children will come to feel a greater sense of pride in their cultural heritage and ethnic background. Although this need exists among all ethnic and racial groups, it is particularly acute in the case of Black, Chicano, Puerto Rican, and American Indian children. Programs offering bilingual and multilingual components help not only the minority child but also children from the dominant culture to understand, appreciate, and accept cultural and ethnic differences.

. . . and teach children from the dominant culture to understand and appreciate cultural and ethnic differences.

TRAINING AND DELIVERY SYSTEMS

□ While the Parker & Dittman training handbook offers a conceptual overview of training areas, practical resources are still needed to provide pre- and inservice training to day care professionals. The materials edited by Ronald K. Parker in the series entitled *Day Care Staff Development and Training Program* represent a step in the right direction, but they need to be expanded upon. This can be done by the inclusion of more topics, additional media, and individual microteaching and roleplaying units.

Also of importance is the fact that appropriate resources have not been developed which can deliver day care services to the consumer on a broad scale. Most of the work in this field has focused on the question of how to operate an individual center. Plans must be instituted to design, install, and maintain day care systems so that children of all ages can be serviced, be they of urban or rural origin. In setting up such total delivery systems, operators must address themselves to the following considerations: site selection, construction or renovation, management, quality control through the monitoring of all program components, and accountability to suppliers of funds and to recipients of services.

Plans must be instituted to design total delivery day care systems.

A NATIONAL INSTITUTE OF CHILD DEVELOPMENT

□ In our view, a national institute of child development needs to be established for the purpose of providing a national structure for interdisciplinary projects in child development. This institute, which should operate as a nonprofit corporation *outside* the federal government, could quickly mobilize talent from all parts of the country to meet a variety of national, state, and city needs.

The success of our project has demonstrated the value in breaking down traditional institutional and agency barriers in order to get a job done. This is probably even more the case if the job happens to be, as ours was, complex and wideranging. Three current needs can be cited by way of illustrating the kinds of projects that such an institute might undertake.

First, an interdisciplinary effort needs to be made to provide every mother, every day care worker, and every nursery school teacher with an understanding of all facets of infant and early childhood development. This can be done effectively through the medium of television. *Sesame Street* has already pointed the way by its success in capturing a large audience of children. Using similar techniques, a similarly large (if not larger) audience of mothers, day care workers, and other concerned individuals can be given the training they need in making the home a more meaningful educational environment for young children. Operating on a nationwide basis, the cost of such programs would be minimal and, once developed, could have a tremendous impact on Western culture and the future lives of the young.

An interdisciplinary effort needs to be made to provide every mother, every day care worker, and every nursery school teacher with an understanding of all facets of infant and early childhood development.

Within the organizational framework, a national institute of child development should function similarly to the current Child Development/Day Care Resources Project by having an advisory board whose membership would be composed of leading figures in the fields of psychology, education, health, and communications. The initial task of the board would be to set up a number of interdisciplinary advisory committees, comprised of expert consultants in all facets of child development, whose role would be to provide guidance in the development of resource materials. Terminal resource products would include TV color films and backup printed materials in the form of guides. The latter would not only serve as a record of the films' contents but would also suggest practical ways in which the principles and ideas portrayed might best be applied.

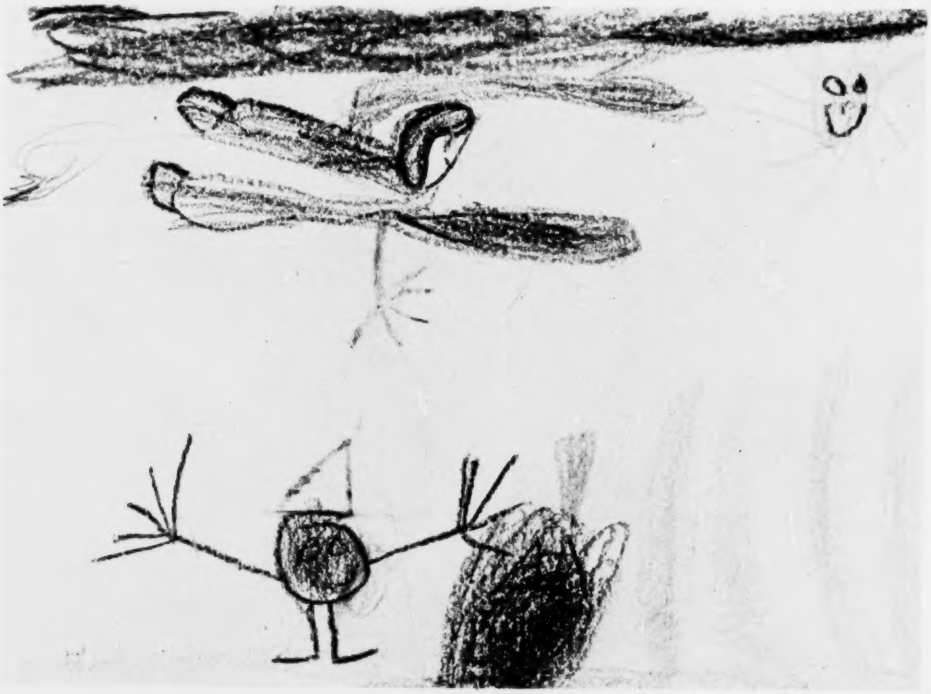
To advance our knowledge in child development, a project should be undertaken to organize objectives for early education and to then assess their attainment.

Second, in order to advance our knowledge in applied child development and early education, a project should be undertaken to organize a comprehensive taxonomy of objectives for early education and child development beginning at infancy and continuing through the age of 6 years and to organize sets of dependent measures to assess the degree to which the objectives are attained (recommended to the Office of Child Development in November, 1970).

The purpose of a comprehensive taxonomy would be to help preschool educators in selecting whatever objectives they might be interested in as a first step toward the organization of a comprehensive education program. Many of the curricula that are currently available fail to meet local needs and, as a consequence, many of the curricula that are adopted by new program operators are either unplanned or poorly organized.

As far as a comprehensive battery of developmental dependent measures is concerned, its usefulness would be that it could enable one to *profile* a child's developmental levels rather than to be forced to rely on only a single index of development. Additionally, the child's progress could be monitored across time in all areas of development. In short, such a battery of measures would make possible a standard method of recording child development and behavior, a method of providing program content leads, and a sensitive method of evaluating early education programs.

Third, a national institute of child development could be responsible for the periodic revisions of all the child development and education handbooks produced by this project. The question of revisions is a major consideration in terms of systematically updating the present material to include new information and program models as they become available for national distribution.



planning and evaluation

james j. gallagher

Administrators and other educational decision makers are faced with demands for program evaluation. Is their program producing results? Is it making a difference in the lives of children? What evidence is there of growth or change?

Evaulation makes the most sense when it is considered as an integrated and useful component to a program. Dr. James J. Gallagher describes the various elements of decision making with definitions and examples. He explains how evaluation can help educators interested in continually improving their efforts.

Good
Christopher Wilkinson

EVALUATION–A PART OF THE TOTAL

□ The term *evaluation* has become one of the most frequently used, if least popular, concepts in education during the past decade. Actually, evaluation is viewed by many educators with the same enthusiasm that they would hold for a coiled rattlesnake. Their attitude is that no good can come from such activities, while some very unpleasant information can emerge from educational evaluations. Consequently, many educators who are forced into evaluation by project requirements, or community forces, wish to get the whole disagreeable thing over with as quickly as possible.

In many cases this would mean that they would turn to psychologists or local university professors and ask them to give some tests to the children and prepare some kind of evaluation report to the decision maker or leader. This is an extraordinarily dangerous approach to the problem, made more so if the evaluator is so naive as to accept the task at face value and do what the educator has asked him to do.

Evaluation can be a useful tool rather than a distasteful task.

The truth of the matter is that evaluation can be a useful tool to the educational decision maker, rather than a distasteful task. For it to be a useful tool, however, he has to conceptualize evaluation not as some separate entity apart from the rest of the program, but actually as a part of a total model of planning and decision making. Then evaluation takes place as one small part of a total planning mechanism.

Planning is essentially rational preparation for decision making. It involves a multitude of dimensions and activities: needs assessment, statement of objectives, and the consideration of program alternatives, of which evaluation is only one component part. Figure 1 shows a simple planning and evaluation model which includes the various components that are generally agreed to be part of a decision making model.

This is a familiar model to systems analysts and planners but not to educators. However, the explanation of the various boxes is reasonably simple and straightforward. One false assumption that is commonly made is that planning always starts in the upper left hand box, "needs," and then progressively moves through each of the boxes in sequence.

It is rare that actual decision making takes place that way. Often we find ourselves starting with a particular program strategy or a sudden demand for evaluation and have to construct the rest of the model from that point.

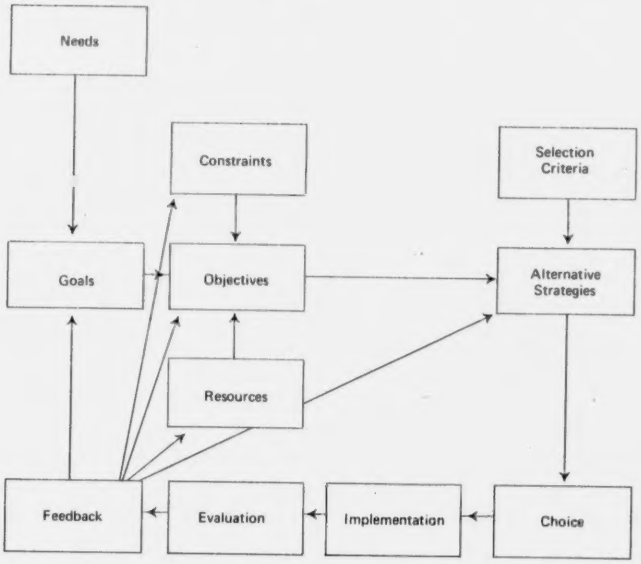
DECISION MAKING COMPONENTS

□ Table 1 shows the various components of decision making with definitions and examples; it is worth some careful study. This model can be used for long range planning or for a simple task on a particular day. The first example is designed to show that we really engage in all of these kinds of decision making activities every day. A decision as to where we should eat lunch involves all of these plan-

Table 1. Examples of Decision Making Components

	Definition	*Example 1*	*Example 2*
Need	A perceived lack that creates discomfort.	Hunger.	Children failing traditional school program on entry.
Goal	A general statement of broad expected outcomes.	Eat.	Improve children's learning readiness.
Objective	Specific expected results from program.	Eat lunch now.	25 percent fewer children failing first grade after 2 years of program.
Constraint	Factors in environment which limit scope of objectives.	Limited cash. Lack of time.	Limited staff or funds for special program.
Resources	Human and physical assets to carry out objectives.	Some cash and transportation.	Aggressive program director and support of administration.
Alternative Strategies	Plans of attack that could be used to carry out objectives.	Pizza Parlor. Cafeteria. Jacques Restaurant.	Head Start program. Home tutorial program. Resource teacher in open classroom.
Evaluation	Information relevant to the achievement of objectives and other effects of the program.	Did I get indigestion? Would I go back again?	How many children were placed in first grade without failing? Did parents notice change in attitude and performance?
Feedback	Information from program related to future decisions.	"Don't ever eat that pizza again."	Home tutorial program effective if there are trained personnel.

Figure 1. Program Planning and Evaluation Model



Educators talk in terms of goals when they think they are stating objectives.

ning elements: needs, a goal, and a specific objective. We must consider the *constraints* and *resources* that we have to weigh in terms of feasible *objectives,* particularly regarding cash, time, and transportation. We must consider what *alternative strategies* are open to us in terms of the number of eating places we might choose from. Finally, we often deliver informal but heartfelt *evaluation* and *feedback* about how our culinary adventure worked out (telling a friend, "I'll never eat at that pizza parlor again!").

Example 2 in Table 1 goes into a more specific educational application in which we are concerned with children who would ordinarily fail in a traditional school program. This specific program objective is stated as "25 percent fewer children failing the first grade after the program had been in effect for 2 years."

One frequent problem of educators is that they talk in terms of goals (or general intentions) when they think they are stating objectives (specific measurable intents). The key distinction is that you should be able to measure whether you have attained your objective. In the present example, "25 percent fewer children failing" could be specifically measured and is a true objective.

Common constraints and resources to be considered are staff and program resources.

The most common constraints and resources to be considered are limitations or assets in staff and program resources, but one would include space limitations, equipment needed, and so on. If there are no trained special education teachers available, that is a powerful constraint against beginning a special education program. On the other hand, we often have more resources available than we traditionally count, and that includes the positive attitudes of key administrators to the proposed program or public support of such a program.

We often fix prematurely on the nature of the program.

Of all of the steps that are useful to reflect upon, probably the one specifying consideration of alternative strategies is most helpful. This is because we often short circuit that procedure and fix prematurely on the nature of the program, ignoring possible alternatives. Example 2 in Table 1 points out that there are more ways to try to help the children in our program than just the now familiar Head Start model.

After all of these considerations have been dealt with, we are now in a position to consider evaluation. If we go back to the specific objective of the program, which is that "we will have 25 percent fewer failing children in the first grade," then the focus of evaluation should also become clear. That is, can we devise a way of finding out how many children were placed in the first grade without failing, or what their achievement levels were at the end of the first year? Then we could estimate whether the program has had some impact or not. In addition, we should collect other evidence related to the outcome, such as, did the parents notice a change in child attitude and performance as a result of the program? Did teachers see a change in the predicted direction? Are the children themselves reporting different feelings about school? Sometimes the accumulation of information acts like circumstantial evidence in a court case. No one piece of evidence is that convincing, but if it all points in one direction, it is convincing.

Correlative results need to be part of a total evaluation.

In considering the total impact of the program, any correlative results need to be presented as part of a total evaluation. For example, perhaps the program was a real "pressure cooker" that made the children intensely dislike school. Even if we reached the original objective, we might feel that result was counterbalanced by the negative outcome that had not been anticipated. Sometimes an unanticipated favorable result such as greater parental harmony can add to the positive side of the evaluation.

Scriven (1967) has proposed a "goal free evaluation" as one specific way of circumventing the blinders one puts on by picking specific objectives to measure. He has yet to demonstrate how such a concept can easily work in practice, but his warnings about ignoring important results because they weren't part of our original objectives need to be heeded.

EVALUATION SUBDIVIDED

One way is to distinguish between process evaluation and product evaluation.

☐ There are a number of ways to subdivide the evaluation concept to reach greater understanding of its many facets. One way of subdividing the complex concept is to distinguish between process evaluation and product evaluation. In the process evaluation, one is concerned with taking continual readings on the development of the particular skill or the progress towards the specific objective. Product evaluation, on the other hand, is a summary of information taking over a longer time frame in which the emphasis is on what was produced, rather than how it was produced. Examples of each are shown in Table 2.

As Table 2 indicates, one can have similar or identical objectives, but in one instance one is concerned about measuring the process to that goal (most teachers are interested in process evaluation since they are concerned about how to sequentially reach a certain goal), while in another instance one is only concerned about whether the desired behavior can be seen at the end of the program effort.

Another key distinction to be made is between formative and summative evaluation.

Another key distinction to be made in evaluation is that between formative and summative evaluation. Formative evaluation refers to information collected upon the program as it progresses which provides the basis of subsequent changes or modifications in the program. The purpose of formative evaluation is not to pass final judgment on a program's fitness, but to collect information that will aid the program director in improving his program.

Table 2. Sample Process and Product Evaluation

	Objective	*Criterion Task*	*Measure*	*Sample Data*
Process	To increase each child's self-help skills so that by June 1 he can feed himself without the aid of others.	Child able to feed self unaided.	Anecdotal record for one child.	Oct. 1 - Child can feed self finger food. Oct. 4 - Child interested in holding spoon, but not able. Oct. 10 - Child holds spoon but drops often.
Product	To increase all children's self-help skills so that by June 1 they feed selves without the aid of others.	Children able to feed themselves unaided.	Pre-post observation of criterion behavior for group.	On November 1, only 10 percent of the children could eat unaided (N=25). By June 1, 96 percent of the children were eating without the aid of others.

If, for example, one finds a parent training program in which the parents are not attending the sessions, then this allows the decision maker to modify the program accordingly. For example, in an urban area sometimes it is difficult to get parents to come out for meetings at night even though they may be very interested. Data to that effect can allow you to reschedule or reprogram the meetings to a more convenient time.

Summative evaluation should be the least used type.

Summative evaluation is the type that the educator usually thinks about when he hears the term evaluation. This is the collection of information with a view towards supporting or denying support to the whole program. Of course, this is the more fearful use of evaluation. However, it should also be the least used type. If formative evaluation has been systematically used in the program, a great deal of information is already available to the educator to support or not support the virtues of a particular program. In fact, summative evaluations are usually called for when no data are available at the local program which could give anybody information as to what is happening in the program itself.

Table 3 also indicates the variety of techniques or measurements for evaluation that represent likely techniques that would be used depending upon the specific objectives of the program. The focus of evaluation is upon answering the questions:

1. Did the program meet its stated objectives?
2. Did any other factors or any other results, unpredicted at the beginning of the program, manifest themselves?

Table 1. Techniques for Evaluation

Measures	*Children*	*Parents*	*Decision Makers*
Standardized	Standardized tests administered to child Standardized informant in-interview scales Established observation and behavior analysis schemes	Standardized "paper and pencil" measures administered to parents Established observation and behavior analysis schemes for parent child interaction	
Nonstandardized	Attendance at program Number of children sent on to regular classrooms Parent report, checklist, rating scales, letters Teacher report, checklist, rating progress report scales Anecdotal records compiled Case studies by clinician Records of criterion behavior Informant interview scales Observation and behavior analysis schemes applied to behavior observed on video tape	Attendance at parent meetings Record of contacts with center: Phone calls Appointments Conversations Visits to classroom Interview of nonstandardized paper and pencil tests on: Attitude Knowledge Report of child rearing practices Teacher report of parent behavior: Anecdotal records Checklist Descriptive narrative Observation and analysis of parent child interaction Letters and comments from parents	Recording number of: Requests for consultations Referrals of children by other agencies Observations and visits to school Brochure circulation Reports in newspaper articles, TV stories, magazine pieces, articles in journals Contacts with other agencies Presentations to groups Followups of workshops and demonstration activities for feelings about presentation Record of new facilities modeled after yours Noting changes in budgeting that increase funds to handicapped

Useful kinds of information for evaluation are simple.

While most of us have been trained to think in terms of the use of standardized tests for measurement, many of the most useful kinds of information for evaluation are simple—counting the number of contacts the child might have, evidence of attendance at meetings, anecdotal records, testimonial letters, and so on. All of these would be of help to the decision maker in a formative evaluation where he wishes to determine how to improve the program.

Evaluation makes the most sense when it is considered as an integrated and useful component to a program. Evaluation can be a useful program tool to those educators interested in continually improving their efforts through a decision making model such as presented here. A list of selected readings is provided for those interested in exploring these topics in greater depth.

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IV. training of personnel

There is no consensus about the one best theory of child development to follow in training personnel. In the presentations and discussions on training, the College recognized the diversity of needs in early childhood programs and the diversity of staff training models that have to be considered to operate over all the diverse systems. Various aspects and problems of training were considered by several participants such as Brazziel, Ora, and Karnes. However, the presentations of David Whitney, Jasper Harvey, and Donald Stedman dealt with the topic in depth.

Mr. Whitney provides an interesting portrait of how people in the private sector—outside the familiar academic channels—can operate productively in a total early childhood development system in which training is an integral part. He stresses the critical, current need for a major investment in training in early childhood education. Quality training is falling short of its mark because of:

- the newness of the field
- the lack of consensus of "just what the best way is"
- there is very little specific curriculum—just broad guidelines or goals.

Of great interest to the College was Mr. Whitney's design of an unusual, comprehensive, total system for the state of Georgia, involving training, curriculum development, and technical assistance, a project which got underway with great dispatch and speed.

Dr. Harvey recounted the evolutionary stages of his staff training facilitation program in early childhood model centers for the handicapped. Here the common idea that diversity of effort is necessary comes forth. "We need diverse methods because people are operating out of vastly different kinds of situations and centers. No longer are we dealing with the teacher in a self-contained classroom but with all levels of staff and all levels of background of preparation." A major function of an inservice training program can be the complementing of existing training facilities. Early childhood centers can play a role in multidisciplinary training that would be difficult to accomplish in a university setting. Dr. Harvey pointed out that although the history of inservice training is bad, this situation need not exist. The key to effective staff training resources within a center is a staff training facilitator whose job is to coordinate inservice training activities, help develop policies, serve as an information source, and obtain administrative commitment and support.

In Dr. Stedman's "The Need for Getting It All Together," his basic message is that people are really more important than the organizational response. Early childhood programs—particularly those concerned with handicapped children—must be populated with communicating, synthesizing people. He emphasizes the need to prepare a new kind of educator who can operate alone in a variety of family and community educating systems, and he describes the elements of a training program that would provide this new kind of specialist. Dr. Stedman introduces a bucket brigade of:

Dippers - who have the synthesizing task;

Shuttlers - responsible for the delivery function of information to thé point of application or utilization;

Throwers - insert information into the proper system at the right time.

training: its role in a comprehensive day care system

david c. whitney

NEED FOR IMPROVEMENT

☐ Almost everyone today joins in criticizing the training that teachers and child care workers have been receiving in early childhood development. Even those engaged in such training agree that their programs should be improved. The need for improvement becomes especially critical now with federal legislation pending that can greatly expand the field of day care, necessitating the training of hundreds of thousands of new early childhood development teachers and workers in the next few years.

REASONS FOR LACK OF TRAINING

Many are captives of their own prior education . . .

☐ While the quality of early childhood development training may be short of the mark, some of the reasons why this is so must be borne in mind. First, more has been learned about early childhood development in the past 10 to 15 years than has ever before been known about the subject. But the heads of most early childhood training departments and many of their instructors received their own training and formed their own philosophies on child development long before this new knowledge was available. Thus, many of them are captives of their own prior education.

Second, there is no concensus that there is one best theory of child development that should be followed. As a result, it is easy for training institutions to continue training as they have in the past, while relegating the new knowledge about child development to courses on theory or history.

Third, what is called curriculum in nursery schools and day care centers generally has been a set of broad guidelines, leaving the day to day teaching of preschool children entirely to the discretion and resourcefulness of the classroom teacher. To cope with the lack of curriculum content, training institutions have tried to equip preschool teachers and child care workers with such skills as finger painting, the construction of mobiles, and rhythm dancing.

Finally, the training of preschool teachers and child care workers often is judged to be inadequate because the centers that employ them provide inadequate financing.

All factors cannot be changed by improving training.

All these factors cannot be changed merely by improving training. However, it remains a fact that any early childhood development program can be expected to succeed only if its staff members can be trained to believe in and fulfill their roles in the program.

In the past several years I have been fortunate in having the opportunity to design a total early childhood development system in which training is an integral part. Because we have been able to plan and develop the curriculum, the physical environment, the child staff ratio, and other details of the system, we also have been able to design the training system so that it is geared directly to what we want to have happen within our centers. It helps staff members learn specific attitudes and skills needed to carry out their roles within the system. It has been particularly gratifying to see this system put into practice in a public school setting at the Early Childhood Development Training and Demonstration Center in Atlanta, Georgia.

THE EARLY CHILDHOOD STAFF TRAINING SYSTEM

☐ The staff training system for the Comprehensive Day Care System provides the means to train the large number of staff members needed to implement services on a statewide basis. It is designed primarily to provide orientation to the program for professionals and career development for paraprofessional personnel.

To the extent that day care areas in the state have local organizations or institutions that provide training services or courses that teach desired competencies in accord with specified objectives, such training services should be utilized. To the extent that they are not available, centers should provide training services in their own facilities with their own materials.

The long term training of professional personnel is the province of the colleges and universities. The cooperation of schools and training institutions is enlisted to design appropriate educational curricula to help their graduates meet the specific competencies required of personnel within the Comprehensive Day Care System.

GOALS OF TRAINING

☐ The overall goal of the training plan is to develop and reinforce those attitudes, concepts, and skills that enable staff members to achieve the objectives of the program and that help them succeed in rewarding careers. The term *staff member* is used to mean each person working directly in the program, including professionals, paraprofessionals, and volunteers.

Understanding of policies and procedures

Staff members receive training to enable them to demonstrate their understanding of the program's policies and procedures and their ability to perform their roles and responsibilities in the following areas:

1. Overall goals, objectives, policies, and structure of the comprehensive program.
2. Child care and child development programs for infants, toddlers, preschoolers, and kindergarteners.
3. Parent child involvement.
4. Family involvement and education.
5. Health services.
6. Social services and counseling.
7. Nutrition and food services.
8. Community relations.
9. Technical assistance.
10. Staff training.
11. Administration and supervision.

The training program develops and reinforces those attitudes among staff members that can lead them to the greatest success in

their relationships with children, with parents, with members of the neighborhood and community, and with other staff members. Trainees are encouraged to understand and believe in the program, which relies on team effort as much as on individual competency. The capacity of staff members to be resourceful, flexible, and supportive is vital both to the development of children and to the involvement of parents.

Skills of staff

The training program assists staff members in developing skills and concepts in working with infants and young children and in using the program's materials and equipment to fulfill the responsibilities of their jobs.

Career development

Some of the trainees employed have had little formal education in child development or work experience in child care. Some are high school dropouts, persons who have never regularly worked before, men and women whose work experience has been confined to low level menial jobs with little chance for advancement, and persons who are unemployed or on welfare. Some trainees are neighborhood mothers who have been confined to their homes caring for their own children, but who now are given the opportunity to place their own children in the program and at the same time begin careers of their own. Through preservice and inservice training, these persons are helped to find long term careers in child development and family service that not only are rewarding to themselves, but are also of great value to their community.

The program provides a career ladder with 17 levels that can be spanned in less than a dozen years. At the lowest levels of the ladder, a previously untrained person who demonstrates empathy with children, parents, and other staff members and an ability to work within the policies and procedures of the programs can be employed as a trainee. Others with more education and experience enter the

career ladder at various higher levels. All receive preservice training before taking up their duties.

In the startup phase of a program, qualified professionals are employed in supervisory, administrative, and training positions that demand prior professional education and experience. But in the long run many of these positions may be filled by staff members who have risen through the career ladder by participation in the training programs. In implementation of the system, wage and salary scales in the career ladder are adjusted to reflect local wage and salary patterns in the communities served.

Within the staff a strong effort is made to prevent status stratification between "professionals" and "paraprofessionals." Differentiation of titles for staff members signifies only degrees of experience and training. Members of the staff in a center are assigned similar responsibilities and tasks, but are expected to perform these tasks with greater or lesser skill depending upon their degree of experience and training.

OVERVIEW OF THE STAFF TRAINING SYSTEM

□ The total training system includes specific training programs for different positions, such as the various supervisory positions, technical assistance providers, the training staff, and center staff members who work in daily direct contact with children and families. It also includes the materials to carry out the training, such as trainer and trainee manuals, training films, audiotape cassettes, roleplaying episodes, evaluation instruments, and related reading.

At least one center in each locality should function as a training center where trainees come for their preservice training, and as a base for training personnel, going out into the field to provide inservice training on the premises of other day care facilities.

The essential features of preservice and inservice training programs for the Comprehensive Day Care System are:

1. Goals and Objectives against which the progress, achievement, and competence of trainees can be measured and evaluated.
2. Planned preservice and inservice training programs tailored to the needs of the categories of personnel to be trained.
3. A system of competence levels related to the career ladder along which advancement is possible.
4. Emphasis on all aspects of the programs being directed toward helping children develop to the fullest extent of their abilities.
5. Emphasis upon the role of the parent and of the family as major factors in the child's development.
6. Teaching of child development attitudes, concepts, and skills in relating to children and working with them to meet their individual needs.

7. Instruction in the related services that form a part of comprehensive day care, including health services, nutrition, social services, parent child involvement, family involvement and education, community relations, and monitoring and quality control.

ROLE OF THE TRAINER

☐ Trainers in the Comprehensive Day Care System carry out the training programs, assist staff in their career development, and train volunteers for participation in the program.

1. A trainer stimulates staff participation in training and works with program supervisors to ensure that each staff member's working schedule allows for released time to take part in inservice training.
2. A trainer remains flexible, accepting and adjusting to changes in meeting new program needs.
3. A trainer evaluates objectively the competence of staff members. He uses objective criteria in evaluating the competence of each staff member to carry out the responsibilities of his position. The trainer assists supervisors in determining when staff members should be promoted, transferred to other positions, or removed from the program if they fail to achieve the competencies required to meet the program's objectives for children and parents.
4. A trainer is a source of information on program policies and procedures. He has knowledge of all aspects of the program and is able to convey accurate information about the program to all staff members.
5. A trainer assists supervisory personnel in establishing good relations among staff members, helping create the group teamwork and unity necessary for the program to be successful.
6. A trainer endeavors to persuade qualified local persons, organizations, and agencies to contribute information and assistance in the training programs. For example, the trainer arranges with a local authority on first aid to teach a course in first aid to staff members. Local and state authorities on child development, health, psychology, social service, nutrition, and other specialized areas are encouraged to contribute to the competency of staff members.
7. A trainer assists supervisory personnel in stimulating the staff to achieve the program's goals and objectives by following the agreed upon guidelines.
8. A trainer encourages the cooperation of local education institutions in the training programs. He assists supervisory personnel in establishing cooperative relationships with local

educational institutions. The trainer endeavors to make arrangements for these institutions to grant staff members academic credits for achievements in the training programs. The trainer also encourages staff members to take courses for credit in local educational institutions to further their career development.

9. A trainer recognizes staff members as persons first and trainees second. Rather than merely regarding himself or herself as an imparter of information to trainees, a trainer first recognizes the individual human needs, limitations, and abilities of each staff member. To accomplish this, the trainer encourages and creates opportunities for many individual conversations and conferences with each trainee.
10. A trainer ensures that each staff member and trainee has the opportunity to develop to the fullest extent of his or her abilities without having to overcome any bias or prejudice on the part of the trainer.
11. A trainer makes every effort to recognize the specific training needs of each staff member and trainee, assisting each to achieve the necessary competencies to fulfill his or her job responsibilities and advance his or her development.

TRAINING METHODS AND TECHNIQUES

□ A variety of methods and techniques are used in the training programs. Each has advantages and disadvantages. No single training method or technique is used so continually that it creates monotony for the trainees.

Each subject is presented by the trainer to the group with specific learning objectives and evaluations for each category of participant

(trainers, skilled staff, unskilled staff, and administrators). Generally, each training period is divided into three segments: (a) presentation of the subject to be learned, through reading, a lecture, a discussion, a film, or an audiotape, (b) observation by the trainees of regular staff involved in or carrying out the subject being learned, (c) discussion among trainer and trainees on what was observed. During the program all trainees are exposed to their job assignment and given limited on the job experience that is observed by the trainer, who in turn uses these observations as the basis for additional individualized training. Each trainee is evaluated to ensure that he or she has the basic skills and knowledge necessary to meet the requirements of the job assignment.

Reading Reading is one of the most common and most efficient means of communicating information to trainees. However, reading, if heavily depended upon, has many dangers in a training program.

Reading Ability of Trainees. Unless the trainer has evidence that all members in a training group are good readers and consistently can demonstrate complete comprehension of what they read, the training should not depend solely upon reading to convey information about the program.

Reading Level of Training Materials. Trainees may be of limited educational background. Therefore, special efforts ensure that reading materials for such trainees are simply and clearly written at their reading ability level.

Reading Aloud. When a training group includes trainees with limited reading ability, the trainer usually has the trainees take turns reading training material aloud. This technique serves two purposes: it ensures that all members of the training group hear the information, and it gives poor readers practice to improve their reading skills.

Lectures Lectures by authorities on specific topics are another efficient means of communicating information to trainees. Seeing the authority face to face and hearing him or her speak the words can often be much more effective than reading.

Discussions Back and forth discussion among trainees and trainers is an effective way of exchanging viewpoints and clarifying concepts that are not clear to one or more trainees. Discussion is always used after each reading or lecture. For the technique to be effective, the group should be small (6 to 12 trainees), so that each trainee has ample opportunity to participate.

Discussion is led by the trainer, who gets the discussion going and keeps it going by posing provocative statements and questions. The trainer makes sure the discussion sticks to the central topic, prevents one or two trainees from dominating it, and ends it as soon as the important points have been covered. Discussions are particularly effective when the trainer states a problem and the trainees try to solve it within the context of the program's policies and procedures.

Videotape demonstrations

The trainer or one of the trainees takes short videotapes of 3 to 4 minutes of a trainee carrying out one of the procedures of the program with a child, with a parent, or with another staff member. The trainer then plays the tape and leads a discussion on the pros and cons of the trainee's behavior, guiding the discussion so that the trainee portrayed on the tape is not embarrassed or "put down" by the other trainees.

Roleplaying

Another stimulus for discussion is roleplaying. Trainees play both adults' and children's roles in simulated situations to gain a better understanding of skills and concepts used in the program. After every roleplaying session, a group discussion is held to relate the activities to their success in achieving desired results.

Trainees also work with children to carry out procedures under the guidance of the training staff. At the conclusion of each child adult session, participants, trainee observers, and trainers discuss situations that occurred during the session, relating them to the desired results.

TRAINING MATERIALS

□ The training programs make use of a wide variety of training materials to achieve the involvement of trainees. These include TV tapes, audiotape cassettes, films, preservice training schedules, trainee manual modules, trainers' manuals, and training education instruments.

Portable TV recorder monitors are used to record and play videotapes of roleplaying sessions and child adult sessions. Tapes are played back for group analysis and discussions, enabling participants

to gain more perceptive self-understanding. Special videotapes also have been developed to dramatize problems and solutions.

Extensive use is made of specially prepared audiotape cassettes. Such audiotapes deal with specific training objectives, presenting dramatized enactments and discussions of situations that come up in center operation and that trainees must learn to handle. Use also is made of short specially developed sound film cassettes. These films utilize the same principles described for the audiotape cassettes except that the situations developed would be primarily visual; that is, the trainee must see what is happening. Child care and child development films also are used to broaden the knowledge of staff members and to set the stage for roleplaying activities and group discussions on specific aspects of the program.

Each segment of each preservice training program has written trainee modules of 500 to 3,000 words. Each of these modules is written clearly so that trainees with limited reading skills are able to read and understand them.

The trainers and trainees work together to meet program objectives.

Each preservice training program has day by day, hour by hour training schedules that guide the trainer and the trainee to cover all the training objectives of each program. Trainers' manuals have been prepared for each preservice and inservice training program, suggesting methods and procedures for the trainer to use in helping the trainees meet the objectives of the program.

To ensure that the objectives of the training programs are met, the trainers are supplied with evaluation instruments to record the achievements of the trainees in regard to each objective of the programs. In addition, evaluation forms and tests are provided to the trainees so that they can evaluate their own effectiveness and the effectiveness of the training program.

PRESERVICE TRAINING PROGRAMS

☐ All staff members and volunteers in the Comprehensive Day Care System participate in preservice training. During this period, trainees maintain regular working hours and are paid a salary for the position for which they have been probationally employed. If by the completion of the preservice training they demonstrate the ability to perform the jobs for which they have been hired, they are certified as qualified for probationary employment in those positions.

Applicants for staff positions are screened to determine their empathy with children and their ability to work with children, parents, and other staff members. As part of the screening process, each applicant is given a specific, open ended, adult child development activity drawn from the system's child development programs, and asked to assist a child with the activity while being observed by staff. The applicant's effectiveness in carrying out the activity and relating with the child is of decisive importance in determining whether or not the applicant is employed and placed in the preservice training program. Each preservice training program follows a structure that includes orientation, observation, participation, and evaluation.

On the first day, trainees are introduced to each other, to the staff, and to the center. In sessions that follow, reading, discussions, roleplaying, and demonstrations provide trainees with an overview of the comprehensive program and how it differs from traditional custodial day care and nursery schools.

The trainer seeks impressions of the trainees' interests and abilities such as the ability to relate to children. Trainees are evaluated on their ability to relate directly to a child or a group of children with warmth, patience, and understanding, and with appreciation for what is happening to a child in a group of children at any moment. (Is the child tired? Does he feel pain or unusual irritation? Does the child need a warming hug—right now?)

The trainer looks for the ability to respect children as individuals. Can the trainees work with a child or a group of children with respect for whatever might be their unique patterns of growth and without making judgments as to who is the "best" or the "worst."

The trainer must have the ability to work with other adults. Can the trainees work with other adults without being threatened by the presence of another person with more formal education, less formal education, racial difference, religious difference, or sexual difference?

Another major factor is the ability to learn and accept the program policies and procedures. Can the trainees learn and accept the program design and relate to its materials and procedures, or does their previous background of experiences prevent them from doing so?

In the succeeding weeks of a preservice training program, depending on its length, trainees learn the program in depth and how to meet the specific needs of children as individuals. Trainees participate in sessions carrying out the program and evaluate each other's performances, abilities, strengths, and weaknesses. Practice sessions with children are held each day, followed by discussions. Further readings, audiotapes, lectures, and videotape demonstrations give trainees an opportunity to learn their specific roles and their relationships with others. Procedures are taught. Roles are defined. Trainers record evaluations of each trainee each day in relation to the training objectives.

TYPES OF PRESERVICE TRAINING PROGRAMS

□ Separate preservice training programs meet the specific needs of groups of trainees for specific positions. The selection of topics, training objectives, areas of emphasis, and sequencing of sessions relates to the specific needs of each group of trainees.

1. *Staff Preservice Training Programs.* All new staff members participate in 3 weeks of intensive preservice training, working with children under the guidance of qualified staff members and trainers, gaining familiarity with all aspects of the program. During the preservice training, they are given the opportunity to demonstrate fully their abilities to work with children, parents, and other staff members.

   Two types of training programs, related to the ages of the children who will be in their care, are needed—Infant/Toddler and Preschool/Kindergarten programs preservice training. The Infant/Toddler programs preservice training stresses the development of infants and toddlers, giving staff members a clear understanding of how to care for infants and toddlers and how to meet their individual development needs. The Preschool/Kindergarten programs preservice training emphasizes the development of preschoolers and kindergarteners, giving staff members an understanding of how to assist them in their development both in group activities and in individual free play.
2. *Supervisory Personnel Preservice Training Programs.* The supervisory personnel receive a preservice training program that includes materials from both of the above described training programs plus training in handling additional problems and routines unique to supervisory positions. The training program includes familiarizing personnel with the various components of the program, with the policies and procedures for the operation of the system, with the skills required for the operation of the specific jobs, and with child care and child development principles and concepts.
3. *Training Program for Training Personnel.* Trainers are provided preservice training to enable them to carry out the above described training programs, becoming familiar with all of the materials, methods, and techniques. In addition, trainers are given on the job training by conducting training programs under the supervision of qualified personnel previously trained as trainers.

INSERVICE TRAINING PROGRAMS

□ A well planned inservice training program is provided for the continuing success of the Comprehensive Day Care System. All too often agencies schedule formalizing training only for the first few weeks of employment. Consequently, employees soon level off in effectiveness and lose motivation for career development. Turnover can be frequent and costly. duties become routine, lethargy sets in, and lower level employees see little or no opportunity to advance within their career field. Inservice training is designed to overcome these shortcomings and to provide a dynamic training program that

encourages maximum employee effectiveness, enthusiasm, and career development.

The inservice training program provides staff members with continuing opportunities to improve their careers. As staff members gain increased competence through training, they also gain greater job satisfaction. This, in turn, reduces staff turnover and attrition.

As the knowledge of child development increases in the years to come, or as changes are designed in the program, inservice training provides the opportunity to pass this information on to staff members for immediate use in helping children and parents. Inservice training also enables the program to assist paraprofessionals who, prior to preservice training, have had little or no formal education in the field of child development.

Inservice training goals

The goals of inservice training are:

1. To assist staff members in developing basic knowledge and skills that will enable them to perform their job responsibilities at maximum capacity.
2. To assist staff members in becoming skilled as child care workers and to help them advance on the career ladder within the program or become certified to work elsewhere.
3. To develop individual skills and talents, including creative ability, leadership, participation in community betterment, and participation in local, state, and national social planning.
4. To help staff members participate in continuing education programs that serve to promote job adjustment and vocational skill. For example, many colleges and universities provide courses to part time students in the areas of child care and family life. Basic education is offered in YWCA, YMCA, and evening school programs. The American Red Cross provides programs in first aid and home care.

Upon successful completion of each phase, a staff member is provided an opportunity to advance on the system's career ladder.

All staff members, regardless of educational backgrounds, participate in inservice training programs. Upon successful completion of each phase, a staff member is provided an opportunity to advance on the system's career ladder.

Staff members are released from their job tasks for 1 to 3 hours each week for inservice training. Staff members are paid at their regular rates for time spent in inservice training.

The center director, with the assistance of the trainer, schedules the inservice training program for all staff members in terms of the allocation of time and space and the provision of materials, equipment, and supplies.

Inservice training program activities take place within the overall weekly schedule of the center or family day care home. This schedule provides for the continuous operation of program services as well as the inservice training program. Inservice training for the staff members consists of one to three 1 hour or 1½ hour weekly sessions. There are morning and afternoon sessions to accommodate different shifts.

Each module provides training activities to help staff members understand the training objectives.

The inservice training programs are designed around single concept training modules, each devoted to a specific training objective. Each module provides training activities to help staff members understand the training objectives, self-evaluation criteria for staff members to judge their own competence in carrying out the objectives, and trainers' criteria to evaluate the effectiveness of each trainee in regard to the objectives. Extensive use is made of problem solving audiotape cassettes, films, and videotapes.

A SPECIFIC PROGRAM IN GEORGIA

☐ Let me briefly describe the work we have been doing in Georgia for the past year or so to give you some insight into the practical aspects of launching a large scale early childhood program. I am referring not to just a single center, but to a statewide program planned to serve thousands of children in hundreds of centers.

In the summer of 1971, Georgia's Governor, Jimmy Carter, established an Inter-Agency Task Force on Coordination for Early Childhood Development. He appointed representatives from the state departments of health, education, welfare, labor, the Board of Regents of the state's colleges and universities, and the governor's office. This task force was charged with assessing the state's needs and planning a statewide comprehensive program for children of ages 0 to 6 and their families.

Because of the Universal Education Corporation's (UEC) experience in designing model comprehensive day care systems, the

state employed UEC to assist the Georgia task force. When we began working with the task force in October, 1971, the members were under the impression that because there was no statewide public kindergarten, only about $3 to $4 million of public money was being spent each year on children in the age range of 0 to 6. As we helped the task force gather data, we found that, in reality, upwards of $28 million in federal, state, and local funds were being spent on children in this age group in a variety of uncoordinated programs.

By January, 1972, we had helped the task force develop a cohesive state plan for a Comprehensive Early Childhood Development Program to serve more than 50,000 children from birth to age 6. The plan called for the legislature to appropriate $6 million to be used with existing expenditures to generate a $70 million a year program through more advantageous use of federal matching funds. Copies of the plan were widely distributed throughout the state, including copies for each member of the legislature which was then in session. The legislature debated the plan throughout its spring session and finally supported Governor Carter by appropriating seed money to initiate the program on a demonstration basis.

The Ed S. Cook Elementary School in Atlanta was chosen by the task force to become the first Comprehensive Early Childhood

Development Demonstration and Training Center for the new program. An old public school built in 1910, the Cook School was chosen for several reasons. First, the physical structure was more typical of schools throughout Georgia than would have been one of the more modern facilities available to the task force. Second, the Cook School was located adjacent to a public housing project, ensuring that the children and families to be served would include a high proportion of persons dependent upon public assistance and therefore eligible for services funded under Title IV-A of the Social Securities Act. Third, Cook School is only a few blocks from the state capitol, making it conveniently accessible as a demonstration center.

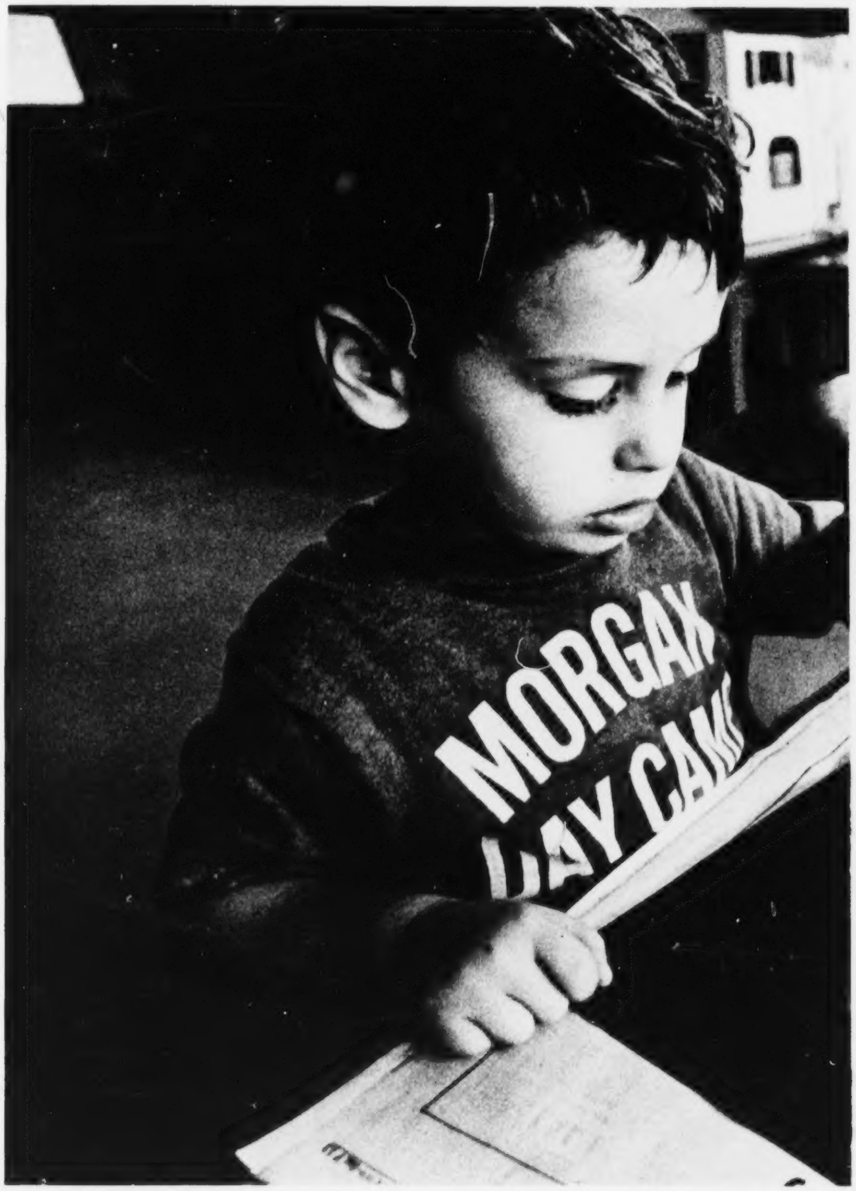
Through a contract between the Atlanta public schools and the state, the Cook Comprehensive Early Childhood Development Demonstration and Training Center was funded on April 1, 1972. The program calls for the Cook Center to serve infants, toddlers, preschoolers, and kindergarteners through full day and half day center based sessions, an outreach program, and family day care homes. The Atlanta public schools system employs the staff and operates the center, while subcontracting with UEC to provide training and technical assistance. In addition, the center purchases child development materials from UEC which have been approved by the state as part of the state plan.

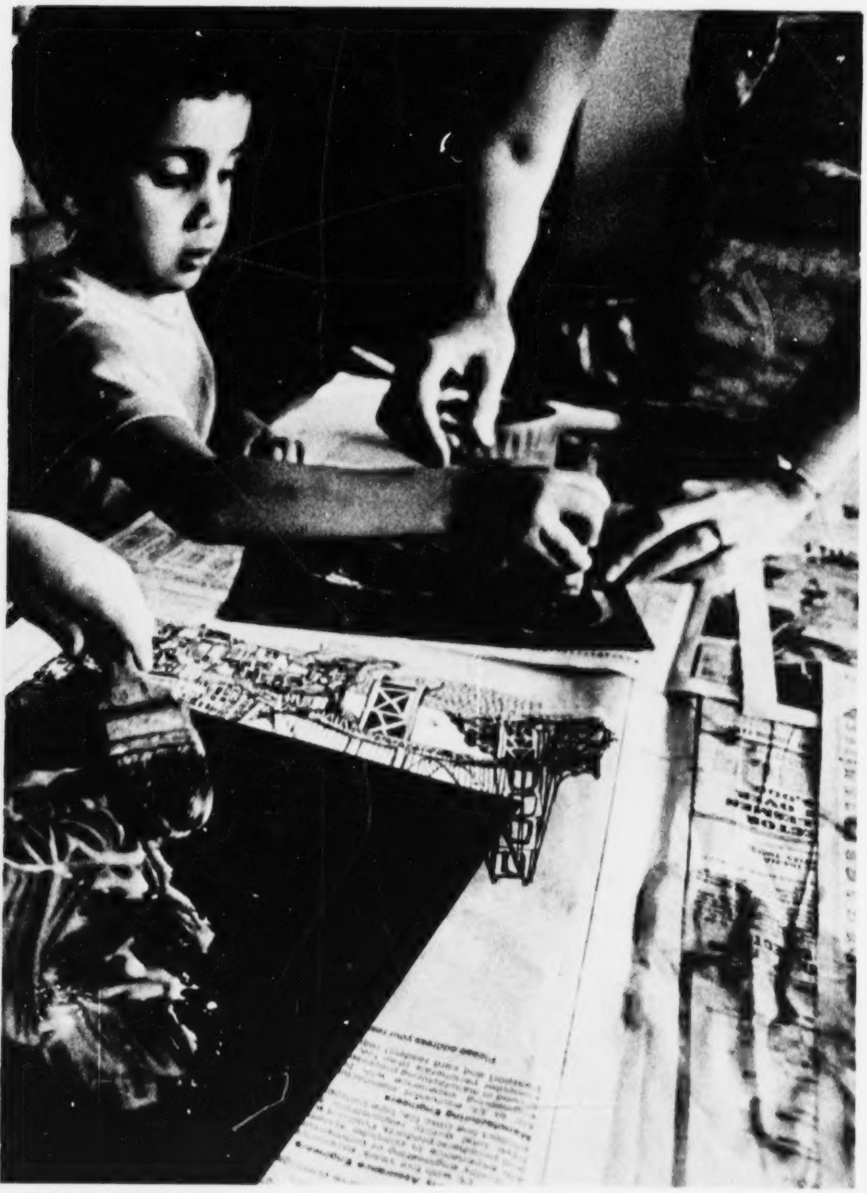
The Cook Center became fully operational by September, 1972, serving 157 infants, toddlers, preschoolers, and kindergarteners in full day and half day center based programs. During the first 6 months, UEC trained 27 staff members, utilizing the previously described training programs. Two thirds of these staff members were welfare mothers who had never previously held jobs in the school system, and many of whom had had no previous record of employment of any kind. Additional money for the training of these mothers was made available to the Atlanta public schools by the Georgia Department of Labor as part of the Work Incentive Program (WIN), which is designed to provide training and jobs for welfare recipients—it is sometimes called "work fare."

Testimony to the effectiveness of the UEC training program has been the fact that not one of the WIN mothers dropped out of the program and that all went on to achieve success in their roles as staff members. Officials of the WIN program have applauded this as a unique record because most other WIN training programs have experienced a high dropout rate of trainees returning to welfare rolls after a few weeks or months. The Cook Center program is especially effective because the WIN mothers are experiencing an improvement in their own lives as well as seeing an improvement in the lives of the children and parents they serve.

training: the development of a handbook for training facilitators

jasper harvey





BACKGROUND OF THE STAFF TRAINING PROGRAM

□ I would like to focus briefly on some of the current knowledge regarding the problems of staff training in early childhood education. As noted by Jordan (1970), Melnechuk's description of a communication process indicates that it is not always possible to "depend on the printed pages of professional journals to stay on top of things" but that it is necessary to develop an internal grapevine system of communication. In July of 1969, The University of Texas at Austin, along with other emerging programs funded under Public Law 90-538, began to learn of the creation of a strong staff training foundation in early childhood education for handicapped children. During 1969-70 contacts were made with directors and staff of existing Exemplary Early Childhood Education Centers to identify recurring themes and needs of staff training. So many individuals made contributions to the data bank, which was tapped to write this paper, that it is not possible to recognize each in an adequate manner. Some of the data discussed are specifically identifiable as to source, and proper credit is given in those instances.

Staff training contributes both to individual and to group development.

The term *staff* is used in this paper to refer to all individuals who work on a regular basis with the program for preschool handicapped children. This includes paid professional and paraprofessional personnel and volunteers. Staff training is a planned sequence of experiences designed to foster the continuing development of (a) the understandings, skills, and knowledges which each individual who functions as a part of a staff must have and (b) the cooperation, interaction, and focused integrated activity among the disciplines represented in a program. Simply stated, staff training contributes both to individual and to group development. Such development is necessary so that the staff of a center may offer the highest quality of services to preschool handicapped children and their families.

FIVE MAJOR ASSUMPTIONS

□ The *Training Facilitator* is a person whose specific function in an Exemplary Preschool Center for Handicapped Children is to stimulate the development and the realization of staff training programs. Five key training assumptions, as developed by Gotts (1971), are basic to the planning and design of the staff training program.

1. THE STAFF MEMBER IS A PERSON FIRST AND TRAINEE SECOND.

   It is imperative that a Training Facilitator make every effort to know and understand the trainee, to recognize and respect his competencies, limitations, and needs—both personal as well as professional. Likewise, the Facilitator needs the same understanding, recognition, and respect to make a mutually satisfying situation. This can be accomplished by providing opportunities for knowing one another in order to promote mutual respect, mutual concern, and mutual understanding, thus enhancing the success of staff development.

2. THE COMPETENCIES NECESSARY TO WORK EFFECTIVELY WITH CHILDREN AND WITH OTHER STAFF MEMBERS IN AN EXEMPLARY CENTER ARE TEACHABLE.

   Many people can learn to work more effectively with preschool handicapped children and with others if they have the desire to acquire the necessary competencies. This assumption, which is basic to the commitment to staff training, is the means of providing an opportunity to do so. If the assumption is valid, then the energies of both the Facilitator and the staff will need to be channeled toward identification of the competencies which are necessary.

3. THE DESIGN OF THE TRAINING PROGRAM IS DIRECTLY RELATED TO THE STAFF MEMBERS' RESPONSIBILITIES.

   Three basic factors in designing the staff training program are (a) the roles and responsibilities of individual staff members, (b) the areas where these individual roles overlap, and (c) staff training needs and resources as identified by the Facilitator and the staff. These basic factors influence and determine the content and organization (grouping, strategies employed, and so forth) of training activities.

4. STAFF MEMBERS HAVE INDIVIDUAL LEARNING STYLES AND RATES.

   The principle of individualized instruction applies to adults as well as to children. The Facilitator, therefore, needs to build in a broad range of both individual and group training opportunities to meet the various levels of learning abilities, types of interests, and initial levels of proficiencies and attitudes of staff members.

5. STAFF TRAINING IS A CONTINUOUS PROCESS FOR ALL

   As a program develops and as new information becomes available and new techniques of problem solving emerge, staff training needs will change. An effective program will reflect the new knowledge by changes in content and procedure to meet the needs. *(Handbook for Facilitators of Staff Training,* pp. xiii-xv).

THE WHO, WHAT, AND HOW OF TRAINING

□ There are four basic components of a staff training model. The rationale, goals, and objectives of the program and the resources available to it form the basis for staff training decisions. The *personnel component,* the WHO of training, refers to the staff. The *content of training component,* the WHAT of training, includes subject matter areas in which training is to be provided. The *strategies component,* the HOW of training, deals with the various means and arrangements through which training is accomplished. Since evaluation must be a continuous process which accompanies each training activity, the *evaluation component* relates to the determination of training effectiveness, and encompasses the other three components (WHO, WHAT, HOW).

RATIONALE FOR STAFF TRAINING

□ As public support for preschool programs continues to emerge, there is an even greater problem of staffing programs with adequately trained personnel. This is true not only for the Exemplary Early Childhood Education Centers for Handicapped Children, but it is becoming a more salient issue as various states, working through the public schools, are beginning to implement programs. Ideally, these educational programs should be staffed with personnel trained in the speciality of early childhood education for handicapped children. Such a speciality implies the melding of two well established disciplines—special education and early childhood education. Personnel working with preschool handicapped children in an educational program must have an understanding of child development and the sound principles of early childhood education. In addition, they also must understand that a child's learning characteristics are effected by various social, physical, intellectual, and emotional deficits. The combined understandings from both of these disciplines will permit the designing of appropriate educational programs and allow allied intervention services and therapies to be instituted. At present few persons have been formally trained in a combination of these two disciplines. There is then no existing pool of manpower available to staff the new programs. Since the overriding need for training in early education of handicapped children arises from the lack of available trained staff, the long range approach solution of this problem lies in the establishment of university and college based teacher training programs. These programs will take time to develop.

They must understand each child's learning characteristics.

CONTRIBUTIONS IN STAFF TRAINING

□ A major contribution of inservice staff training is to complement the incomplete or inadequate preparation of staff. There are skilled individuals available who are well qualified in either special education or early childhood education. These individuals have much to contribute in terms of understanding the educational strengths and weaknesses of children as well as understanding the concepts and practices involved in developing specialized educational programs which will help the child develop in the direction of his potential. Staff training can also meet new needs of persons who through formal course work and experience have already become competent. Such a professional person may need to acquire special skills necessary to a particular aspect of the program. For example, the director of the educational program may need to learn about microteaching techniques. If the center or school has decided that microteaching is to be a major focus for performance feedback to be

Persons who are already competent can benefit from staff training.

utilized by those directly involved in working with the children, the desired techniques may be acquired through inservice staff training.

Inservice staff training for reasons of inadequate or incomplete professional staff preparation affords advantages above and beyond increased competencies on the job. As a staff becomes better trained for their functions, they tend to become more contented and to take more pleasure in their work. Such increased satisfaction in the performance of duties tends to alleviate problems of staff turnover or staff attrition. There is every indication that individuals with experience exclusively in special education or in early childhood education, or even those who have had little training in either area, may become effective workers if given sufficient supervised training and experience. Staff training also allows the individual already

As a staff becomes better trained they tend to become more contented and to take more pleasure in their work.

competent in early childhood education for the handicapped to acquire new techniques and skills necessary for continued high level performance.

An additional major contribution in staff training is related to changes in knowledge and expertise within disciplines. Changes in understanding children and their development are occurring at an ever accelerating rate. Tremendous effort is involved in seeking, reading, assimilating, and integrating developments in order to remain at the cutting edge of one's discipline. Keeping aware of changes can be accomplished in a variety of ways: doing formal course work, utilizing work shops, visiting other programs, working with children, learning new methods, approaches, and techniques for providing services to preschool handicapped children. Training is an ongoing process. It takes time for growth to occur.

Redefinitions of roles are required.

A further contribution to staff training is related to readjustments and redefinitions of roles in the multidisciplinary settings required for handicapped children. The preschool setting for handicapped children frequently is located in settings which utilize professionals of various disciplines such as the psychologists, social workers, physician, on a full or part time basis. Therefore, it is highly likely that the child will continue to receive services from professional persons other than the teacher or educational professionals. If appropriate readjustments and redefinitions of roles are to come about, interdisciplinary activities within a center assume inservice training. Staff training activities directed at role definition and at understanding the contribution that each is making to the total service program for children will constitute the first step for team development.

An additional major contribution of staff training is related to the greater involvement of paraprofessionals' inservice programs than has previously been the case. More than 75 percent of existing teacher aide programs were begun after 1960. As a result, few precedents are available for reference. New role relationships must be defined and developed. It is unusual to find professionals who are able to work effectively with paraprofessionals without preliminary training or orientation. Inservice programs are essential in helping develop the skills and working relations which will enable each to fully utilize his expertise and training.

The use of paraprofessionals in preschool programs is especially appropriate.

The term *paraprofessional* refers to a person who works with a professional but who lacks the education or experience to be certified as a professional. Well trained paraprofessional personnel can make valuable contributions to preschool programs for the handicapped. The less formal organization of preschool classrooms, the greater dependency of younger children on adults for basic needs, and the greater need of younger children to depend on adult resources all make utilization of paraprofessionals particularly appropriate in preschool programs for the handicapped. Young impaired children frequently need much more individual attention than nonimpaired children.

A major advantage derived from staff training is related to the importance of staff members' feelings of on the job competency and of interpersonal relations among those who work within a program. Competency in fulfilling the role that an individual has accepted in his work contributes heavily to the team effort. Though he may sense something is wrong, he may be unable to identify the problem. The term *hidden agenda* is used by communications specialists to describe that preoccupation which limits an individual's ability to contribute fully in a program. Inservice staff training, properly organized and facilitated, can provide appropriate outlets for expression of "hidden agenda." Thus, the development of a climate of trust and competence among staff members can facilitate the personal development and the maintenance of interpersonal communication.

A "hidden agenda" can limit the individual's ability to contribute to team efforts.

THE STAFF TRAINING FACILITATOR

☐ As the need for training increases in all early childhood programs for handicapped children, so also does the need for recruiting and training individuals to serve as Training Facilitators. Although the roles of the Training Facilitator may vary from program to program, generally he is responsible for the coordination of the inservice training of all staff members. He is also responsible for developing a staff training philosophy, a set of goals, and a set of policies and procedures which are compatible with those of the center. He will ascertain administrative commitment to the training program. Such

commitment requires released time for training, allocation of space, budgeted funds, and lines of communication to expedite training.

Specifically, the Training Facilitator may be responsible for some 20 broad categories of activities and procedures. Selected examples include that he:

- contributes to the development of the program's rationale, goals, objectives, policies, and procedures.
- *assesses* the training needs of staff members.
- *develops* staff inservice training programs.
- *stimulates* participation in the inservice training program.
- *locates, prepares,* and *disseminates* resource information in a variety of areas and at differing levels of sophistication.
- *serves* as a direct or indirect source of general information for staff from various disciplines related to the training program.
- *provides* training that is directly applicable to advancement within the center.
- *evaluates* the results of the staff training efforts. *(Handbook for Facilitators of Staff Training*, 1971, pp. 19-30).

Assuming that the Training Facilitator will be responsible for many of the roles above, he will need to develop a variety of knowledges, skills, and abilities. He must be well organized, yet flexible, versatile, and able to perceive the pertinent elements of a given situation and to utilize them in planning and conducting effective training programs. He must facilitate the development of smooth group relations and foster interdisciplinary and interlevel staff cooperation. He must have a broad general knowledge of the total program and be competent in employing a variety of leadership styles in order to utilize the most effective style in a given situation. In recognizing staff members as individuals with their own needs and abilities, he will desire to know, to understand, and to accept them personally. Using these skills and knowledges the Training Facilitator can contribute to the unification to the total staff effort around the goals of the program so that each staff member feels personally responsible for and involved in the program.

BASIC STAFF TRAINING STRATEGIES

□ Strategies which can be employed in training sessions are the HOW of training, and depend largely upon who is to be trained and on the content of the training. Four general goals common to most training activities are to bring about changes in (a) knowledge, (b) attitudes, (c) actual performance skills of staff, and (d) interpersonal relations. The final influence on the choice of training strategies will be the nature and number of resources available. The most careful planning and implementation are necessary if staff training arrangements are to be successful.

> Inservice staff training is notoriously ineffective. The Staff Training Program at The University of Texas at Austin does not believe that this is inherent to the process itself. It can and should be a rewarding and stimulating experience. (*Handbook for Facilitators of Staff Training,* 1971, pp.34-35).

Staff training can become a problem solving modality when a Staff Training Facilitator is delegated specific responsibility along with the time for planning, gathering resources, and making required arrangements. The training strategies vary from relatively simple techniques like reading, lectures, and discussions, to the more complex training arrangements like workshops and institutes.

SIMULATION

☐ Various simulation activities have become prominent in training programs in recent years. These include microteaching, role playing, and simulated problem solving. Simulations, which involve the staging of makebelieve situations which approximate reality as closely as possible, allow the trainee to experience aspects of a job about which it is impossible to gain clear information from reading, lecture, or discussion. By simulating certain crises the trainee learns to react under the guidance of experienced personnel in a fraction of the time required to learn the same behavior in actual on the job work. The further advantage of simulation is that it is in a threat free and failure free environment. The major purpose, then, is to help staff members gain new skills before meeting them in real life situations.

An advantage of simulation is that it is in a threat free environment.

The use of consultants is a major strategy for staff training. They may be employed very effectively in a variety of ways. However, the objectives of the consultation should be defined carefully and in sufficient detail so that the consultant can prepare adequately for sessions. In advance of the consultant's visit, the Training Facilitator should alert the staff of the need to read and to acquire basic information.

Many of the existing centers have expressed a strong interest in parent training, use of paraprofessionals, and involvement of volunteers. Fechtmeyer (*Handbook for Facilitation of Staff Training,* 1971, pp. 77-116) developed three practical applications which utilize various strategies of staff training. These examples suggest the actual content, mention important considerations of training activities, and illustrate the ways in which different strategies of training are combined to produce a complete training sequence.

COMPILATION OF STAFF TRAINING PROBLEMS

☐ An awareness on the part of the Training Facilitator is helpful in planning and implementing the staff training program. The University of Texas at Austin Staff Training Project, in cooperation with existing exemplary centers, collected pertinent information relating to staff training problems through interviews, questionnaires, and staff training conferences. That information was analyzed and organized in a manner to identify recurring themes. The areas relating to staff training were then organized into an alphabetized and annotated listing of problems. Those problems formed the basis for the development of a check list by Smith and Andrews (*Handbook for Facilitators of Staff Training*, 1971, pp. 118-145) to assist a Project Director or Training Facilitator in assessing training needs within his setting. A check list of 175 items was developed around the 75 identified problems. Examples of those 75 identified training problems are Advisory Board, Auxillary Personnel, Behavior Modification, Data Gathering, Evaluation, Funding, Inservice Training, Minority Groups, Power Structure, Site Visits, Task Analysis Procedures, Visitors, and Volunteers. Since *Evaluation* seems to be an overriding problem, examples of items are given from that area.

	Response		
Problem Area	Yes	No	Not Applicable
EVALUATION (Also see OBJECTIVES: SELF EVALUATION)			
53. Is the staff involved in determining the evaluation procedures for staff training?	______	______	______
54. Have the relationships between the training objectives and the staff training been reviewed?	______	______	______
63. Does the staff understand that evaluation is gathering information in a systematic way for the purpose of making more effective decisions?	______	______	______
64. Does the staff understand that evaluation is a continuous process rather than a one time event?	______	______	______

(*Handbook for Facilitators of Staff Training*, 1971, pp. 127-128)

As a need for a Training Facilitator is established so is the need for evaluative guidelines. If a program is to be innovative and exemplary, staff activities must be comparable. New methods require continuing upgrading and renewal. Staffing for early childhood education for handicapped children requires individuals who are informed and flexible and who constantly reassess methods and motives. The objectives of staff training determine evaluation. Each program defines its own objectives and in terms of those objectives certain tasks and questions become relevant. An example developed by Phillips would be

Objective: The staff member will display knowledge of his duties, responsibilities and expected performance.

Evaluation: In consultation with the individual staff member a list of duties and responsibilities is drawn up. A monitoring check list is developed to allow a staff member to check off tasks as accomplished. Feedback questionnaires, video tapes, demonstration critiques, and activities reports will provide information in how well he is meeting the objectives. This applies to professional staff as well as paraprofessionals. Each member of the staff from the director to the custodian needs to know what is expected of him and how his performance is evaluated. *(Handbook for Facilitators of Staff Training,* 1971, pp. 147-148)

New methods require continuing upgrading and renewal.

In any program care must be taken to insure continuous monitoring and evaluation. Such evaluation may be accomplished with a variety of instruments but it is essential that regular check points be established. If objectives are set forth in behavioral terms for staff training, all staff personnel should be involved in the selection of those objectives. They also should be involved in the selection of those instruments used for evaluating them and for planning strategies to carry out the measurements. Further, divergent views may be brought together to assure a program of measurable objectives which have the possibility of providing efficient evaluation as well as the building of a team of professionals, paraprofessionals, and parents to provide an exemplary program for handicapped children.

Care must be taken to insure continuous monitoring and evaluation.

The University of Texas at Austin, Department of Special Education. *Handbook for facilitators of staff training: Early childhood education for handicapped children.* Austin: Author, 1971. (Data from the *Handbook* specifically attributable: Fechtmeyer, S., pp. 77-116; Gotts, E. A., pp. xiii-xv; Phillips, L., pp. 147-148; and Smith, F., & Andrews, D., pp. 118-145.)

Jordan, J. B. Dial G for grapevine: A conversation in exceptional child research. In J. B. Jordan & P. L. McDonald (Eds.), *Dimensions.* Arlington, Va.: The Council for Exceptional Children, 1970.

Staff Training Monograph, Glossary, Bibliography, and Prototype Series

The Staff Training Program for Exemplary Early Childhood Education for Handicapped Children at The University of Texas at Austin has developed a compendium of staff training resources. These staff training resources include listings of pertinent professional organizations, selected professional journals, basic information and resources related to planning a media program, a listing of suggested professional library books by areas, and a selected list of available consultants in some 46 areas that are tangential to early childhood education for handicapped children. In addition, the Staff Training Program has developed a Staff Training Monograph, Glossary, Bibliography, and Prototype Series. All the titles in the following list are available from ERIC.

Copies of the documents in this series are available from ERIC Documents Reproduction Service in microfiche (MF) or hard copy (HC). Orders should be submitted in writing stating the ERIC order number (ED number). Remittance must accompany orders totaling less than $10.00. A price list is available from the distributor: LEASCO Information Products, Inc., P. O. Drawer O, Bethesda, Maryland 20014.

The series of monographs is related to various problems and concerns related to the education of young handicapped children and was especially solicited and commissioned for the Staff Training Prototype.

Vol. I, No. 1. Educational Programs for Children Under Six with Implications for the Handicapped by Clyde I. Martin, Ph.D. (monograph), ED 055 382.

This monograph includes selected major education program content needs and suggested methods of implementing those areas. This monograph serves as a springboard for staff training and development, and as resource material for reference.

Vol. I, No. 2. An Administrator's Suggestion for a Sample Staff Training Program Sequence in an Early Childhood Education Center for Handicapped Children by Fred W. Kirby, Ph.D. (monograph), ED 055 383.

This monograph includes major problems for developing schedules for on the job staff training. A sample staff training program of approximately 40 hours is outlined in detail.

Vol. I, No. 3. Speech and Hearing Services in Exemplary Early Childhood Education Centers by Lear Ashmore, Ph.D. (monograph), ED 055 384.

Development of speech patterns and skills is general to all programs. This resource is intended to bridge the work of the teacher and the speech clinician, with practical suggestions for working together and enriching the program for the child and parent.

Vol. I, No. 4. An Approach for Counseling Mexican-American Parents of Mentally Retarded Children by Homero Acevedo, Social Science-Humanities Research Associate (monograph), ED 055 385.

The author discusses the characteristics and problems of Mexican-Americans, their stereotyped image as opposed to the self-image of the "La Raza." Cultural familial influences in Mexican-American homes are examined as important considerations in the counseling model. A simulated counseling session provides insight into parental reactions.

Vol. I, No. 5. Glossary of Medical Terms for Personnel Working with Preschool Handicapped Children and Their Parents by John A. Boston, M.D., Consulting Psychiatrist and Ralph Hanna, M.D., Consulting Pediatrician (glossary), ED 055 386.

The glossary of medical terms was compiled by personnel working in centers. It serves as a handy reference for any staff member who is not familiar with such specialized vocabulary.

Vol. I, No. 6. Introduction to Young Exceptional Children: A Guide for Paraprofessionals by Gale Lambright, Ed.D. (monograph), ED 055 387.

This reference introduces the paraprofessionals to the areas of exceptionality. The resource was written at the upper elementary and junior high school reading level.

Vol. I, No. 7. Selected Bibliography and Notations: Parents, Teacher Aides and In-Service Education by Martin Kaufman, Research Associate (bibliography), ED 055 388.

This resource suggests references that can be incorporated into the staff training program from the standpoint of a professional staff working with the paraprofessional staff, the training of the paraprofessional staff, and the paraprofessional staff working with parents.

Vol. I, No. 8. Review of the Literature in Early Childhood Education, with Emphasis Upon Early Education of Handicapped Children: A Staff Training Manual by Edwin K. Hammer, Ph.D. (monograph), ED 055 389.

Dr. Hammer categorizes the selected studies by problems investigated. Under *Research Studies in Early Education of Handicapped Children* he discusses the studies of Bloom, Skeels, Barraga, Jones, McGuire, Kirk, and Bayley. Other categories and examples of the research cited are: *Studies in Program Development*, Bangs, Hammer, Kirk, and Johnson; *Nursery/Day Care Programs*, Sears and Dowley, Bear, Frank, Clifford, Hewett, and Bateman. The summary reviews historical development, areas of need, and the current controversies in the field of early childhood education.

Vol. I, No. 9. Gross Motor Engrams: An Important Spatial Learning Modality for Preschool Visually Handicapped Children by Carol Whitcraft, Research Associate (monograph), ED 055 390.

This monograph discusses references related to research problems of mobility and spatial orientation in young children. The concept of engrams (simultaneous internal neuronal responses to afferent stimuli) is proposed as the physical basis of memory. The studies of Evarts and Tower dealing with the relationship of the acetylcholine pathway and cholinesterase inhibitors to efferent activity are reviewed.

Vol. I, No. 10. The Special Purpose Preschool for Children with Multiple Disabilities by Nancy W. Steele, Ph.D. (monograph), ED 055 391.

Dr. Steele's introduction deals with the history, development, and rationale for preschool educational services for the multiply impaired child. The comprehensive discussion of the preschool program is orgranized into eight component areas: Goals, Organizational Patterns, Group Activities, Individualized Teaching Activity, Parent Involvement, Use of Consultants, Research Component. Each area is explained in detail and suggestions are made for activities and implementation, with concluding remarks defining the objectives, the competencies involved, the method, and the evaluation of preschool classes for children with multiple disabilities.

Vol. I, No. 11. Training of Nonprofessionals in Early Childhood Education Centers by Anne Rister, Supervisor, Houston Speech and Hearing Center (monograph), ED 055 392.

Few areas in education are as sparsely represented in the literature as that of paraprofessional training. In this monograph the author has provided a valuable and practical approach to a little documented area by presenting the questions and their solutions which evolved from direct experience in training paraprofessionals. Two major organizational areas covered in the paper are (a) Guidelines for Training and Employing and (b) Description of the Training Program for Instructional Aides at Houston Speech and Hearing Center. Topics discussed under the title "Guidelines" include: Major Problems, Preplanning, Staff Involvement, Training Program, Selection of Trainees, Professional's Role Changes, Supervision. Description of the Training Program contains discussions of Training Phase I and Phase II, Schedules, Job Descriptions, Sample Projects, Model Characteristics, and Conference Techniques.

Vol. I, No. 12. For Those Who Choose to Teach in the 70's by Anne E. Hughes (monograph), ED 055 393.

This monograph is a practical and useful guide of proposed answers to questions the beginning teacher should ask herself before entering the teaching field in the 70's. These are a few questions analyzed: What does it take physically, socially, emotionally, and intellectually to teach? What are the objectives to the teacher learning process? How are the objectives reached?

Vol. II, No. 1. A Bibliography Related to Early Childhood Education, Child Development, and Preschool Handicapped Children compiled by Ernest A. Gotts, Ph.D. (bibliography), ED 061 687.

This bibliography consists of three parts which are divided into 33 area headings. Early Childhood Education and Related Topics (Part I) consists of 16 subheadings, Early Childhood Education and Handicapped Children (Part II) includes 12 subheadings, and Child Development (Part III) is divided into 5 subheadings. The bibliography is intended to serve as an extensive resource bank for training programs dealing with early childhood education for handicapped children.

Vol. II, No. 2. Early Childhood Education for Handicapped Children: A Bibliography of Selected Books by Ann H. Adams, Ed.D. (bibliography), EC 05 0277.

This bibliography contains references of hard bound books on early childhood education and areas of exceptionality.

Vol. II, No. 3. Learning Systems for Preschool Physically Handicapped Children: A Training Program by William A. Myers, Ed.D. (monograph), ED 061 688.

This monograph deals with the learning systems (motivation—general and specific, degree, intrinsic and extrinsic, reward and punishment, realistic goal setting, personal history, active and passive participation, meaningful materials and tasks, repetition, and transfer of training) as stated by Hilgrad (1956). The physically handicapped child is discussed in relationship to the learning systems. A plan for a training program is also included in the monograph.

Prototype Annotations

The prototypes have been developed by exemplary center directors and staffs. These include Staff Training Models on a State-Wide Basis, in a Rural Area, in a University Setting with Emphasis on Behavior Modification, in a Clinical Setting, in a University Setting with Emphasis on Parent Training, in an Agency Setting, in an Inner City Setting, in a Public School Setting, in an Institutional Setting, and in a Center for Disturbed Children. Many of these prototypes include not only transcriptions but also slides and other pertinent resource materials for staff training. Only the prototype transcriptions are available from ERIC.

Orders for documents in this prototype series may be submitted to ERIC Document Reproduction Service as specified in the Monograph, Bibliography, and Glossary Series listing.

Vol. II, No. 1. Staff Training on a State-Wide Basis by Winifred Northcott, ED 061 656.

22 page transcription, copy of evaluation sheets for workshops, copy of weekly children report for use by staff with reference to children in class, 110 slides.

Vol. II, No. 2. Staff Training in a Rural Area by Louise Phillips, ED 061 657.

12 page transcription, 14 transparencies depicting training structures.

Vol. II, No. 3. Staff Training in a University Setting (With Emphasis on Behavior Modification) by Alice H. Hayden, ED 061 658.

15 page transcription, 80 slides.

Vol. II, No. 4. Staff Training in a Clinical Setting by Tina E. Bangs, ED 061 659.

33 page transcription, 16 slides.

Vol. II, No. 5. Staff Training in a University Setting (Emphasis on Parent Training) by Merle Karnes, ED 061 660.

31 page transcription, 95 slides.

Vol. II, No. 6. Staff Training in an Agency Setting by Berta Rafael, ED 061 661.

16 page transcription, 90 slides.

Vol. II, No. 7. Staff Training in an Inner City Setting by Paquita Roberts, ED 061 662.

12 page transcription, 22 slides.

Vol. II, No. 8. Staff Training in a Public School Setting by Don Taylor, ED 061 663.

12 page transcription, 43 slides.

Vol. II, No. 9. Staff Training in an Institutional Setting by Louise M. Bradtke, et al., ED 061 664.

17 page transcription.

Vol. II, No. 10. Rutland Center by Mary Margaret Wood, ED 061 665.

59 page transcription.

training: the need for 'getting it all together'

donald j. stedman

"GETTING IT ALL TOGETHER"

There is an almost universal yearning . . . to pull together the various research, development, training, demonstration, planning, and service delivery programs.

☐ Aside from futurism and the Super Bowl, the big game today is "getting it all together." What this means, when applied in the early childhood area, is that there is an almost universal yearning for the ability to pull together the various research, development, training, demonstration, planning, and service delivery programs into a continuous, efficient, functioning network or system that will improve the quality of life for all children, especially for those who are handicapped or exceptional in some way.

This whole issue was generated in my own mind about 2 years ago when Mrs. Patricia R. Hitt, who is Undersecretary of HEW for Community and Field Services, asked me if I would do an informal assessment of HEW programs, pulling together information on the current federal response to the problem of mental retardation. I was to find out where the federal programs were, in what directions they were going, how they were populated, and how funds were distributed. I accepted the responsibility mostly out of curiosity, but it also seemed to be an opportunity for me and my colleagues to get some feeling of how the organizational response at the federal level was deployed after some 8 or 9 years of development.

I had had feelings, as everybody else had prior to that time, that we had a proliferation of programs at all levels, but I had no idea of the large number and varying quality of programs throughout the country that were federal responses to just this one issue. I had no idea how they ranged all over the landscape, organizationally, with very little if any functional communication, either horizontally or vertically. This situation, coupled with what appears to all of us as a need for pulling together and making these kinds of programs more efficient and effective, brought home very clearly to me our great needs for coordination of both the economy and service to the consumers in the area of mental retardation. It seems to me that it would be useful now to take a look at how we might approach this problem.

COMMUNICATIONS PEOPLE FOR A DELIVERY SYSTEM

☐ This is the situation as I see it. Even if we are successful in constructing or developing all the administrative components of an effective delivery system, it would be nonfunctional if it were not populated with *communicating-synthesizing* people. Conversely, research, training, and service programs populated by communicating-synthesizing people would achieve some level of effective function, although maybe at a lower level of efficiency, even in the absence of the proper administrative components of a delivery system. So, in my view, people are really more important than the organizational response in trying to "get it all together."

We have some good examples of the latter situation already. There are presently in excess of 50 national networks related somehow to early childhood education for the handicapped. They include the University Affiliated Training Programs supported from the mental retardation (and now Developmental Disabilities) legislation, the national network of Instructional Materials Centers, the Regional Education Laboratories, the National Program on Early Childhood Education, the First Chance Network developed from the Handicapped Children's Early Education Assistance Act, the R&D Centers systems of the Office of Education and the National Institute on Child Health and Human Development, the Parent Child Centers from OEO-OCD, and many other examples.

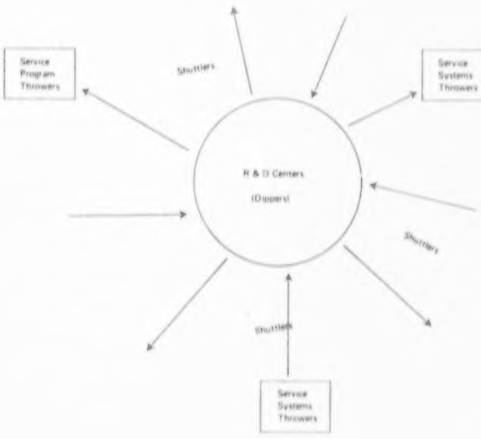
VERTICAL AND HORIZONTAL LINKAGES LACKING

☐ What is lacking now are both *vertical* linkages and mergers and the necessary *horizontal* linkages and mergers that can make these into effectively working systems. Again, the basic defect is not the lack of an innovative, creative, administrative-organizational response to the need but rather the lack of available training programs and training program products that would populate any organizational response in such a way that we would have effective and efficient linkages among these various pieces.

THE BUCKET BRIGADE

☐ In the early stage of development of such linkages, what we need is a bucket brigade. To continue the analogy, we need to develop some *dippers,* some *shuttlers,* and some *throwers.* We need to move the R&D products into a delivery system that will be effective at the point of service need. We need people to dip into that backlog of existing research, some people to shuttle it to the right place at the right time, and some people to throw it on the right fires in the right systems at a time when the most effective program development activity can be mounted (Figure 1).

Figure 1. The Delivery System's Bucket Brigade



Information is gathered by the dipper and synthesized.

The "dipper" performs a gathering and *synthesizing* task. Current available research, training, demonstration, and service program information is gathered by the dipper and synthesized for movement to a variety of service situations for distribution or application. This process could include the observation and synthesis of information on a new teaching technique. It could be prepared for movement to classroom settings in a variety of forms that correlate with the level of training, competency, and need of the person who would use the information material or technique.

The shuttler performs the delivery function.

The second function of the brigade is the *delivery* function, the shuttling of information to the point of application or utilization. This can be accomplished either by the person who gathered and synthesized the information or by an intermediary person who then supplies it to the thrower.

The thrower inserts the material into the proper mainstream.

The function of the "thrower " includes not only the quantity and quality but also the tempo of the application of information and the utilization of techniques or material. In some cases the user himself is the thrower. In other cases the consultant or technical assistant to the actual user would be the thrower. This last function would be called *insertion.*

So the synthesis, delivery, and insertion into the proper system at the right time constitute the chain of events and functions in which the dipper, shuttler, and thrower are engaged. These three functions could be accomplished by the same individual or by a team with slightly overlapping functions and activities. Regardless of who performs them, though, they are critical functions independent of the organizational network developed to deliver the goods. The determination of tempo, alternatives, utilization of historical perspective, and estimate of the affective aspects of the consumer are all nonorganizational components. They could all be covered by the proper individual trained in the proper way.

CURRENT TRAINING PRODUCES "SPECIALISTS"

□ Existing training programs tend to produce individuals who are competent at only one of the functions mentioned, either synthesis, delivery, or insertion. We have not yet set about to build the training program that would produce a person who could comfortably and effectively carry out the sequence.

Within the health systems, for example, the dipper is the basic or applied scientist who develops a new drug, the shuttler is the drug company's retail salesman, and the thrower is either the practitioner at the local level, the subprofessional, or the consumer himself.

In the agricultural area the basic and applied researcher moves the product out through a whole network of farm bureaus, county agents, and other training and direct delivery modes to farmers who are in a position to apply evaluated research product within days of its availability. This kind of network is not available in either the health or educational areas.

The basic impediments, in my view, to the training of such diversified individuals up to this time have been the lack of effective interdisciplinary training programs, the negative effect of fragmented research/training/service organizations, and the lack of a mass of information and communication activities that would provide the opportunity to develop individuals to undertake the functions I have described. But that situation no longer prevails. There is now a readiness on the part of both the professionals and government systems and the consumer groups to move into this kind of training program and product deployment.

A NEW EARLY CHILDHOOD EDUCATION SPECIALIST

☐ In order to do this we have to train a new early childhood education specialist—a developmental educator—who is trained for implementation and who has the historical perspective, as well as the competency, to implement whatever delivery system we manufacture to correspond to the bucket brigade. We may have to submerge the individual in the specialized discipline in the service of developing an unselfish team that will work well laterally and vertically within the system. Some elements of new child advocacy systems suggest that this is the course to follow.

There are some existing training programs, such as the Child Development Consultant training program at George Peabody College, that represent an early version of what I hope will develop. Another is the Technical Assistant training program developing within TADS (Technical Assistance Delivery System) at the Frank Porter Graham Child Development Center at the University of North Carolina.

TRAINING THE NEW SPECIALIST

☐ I would like to offer a model training program for one type of specialist who might be useful to populate the system we are all searching for. We need a new educator who can operate alone in a variety of family and community educating systems. The corporate educational model is falling of its own weight. A new kind of educator is thus required for a new kind of educational enterprise emphasizing early childhood education, family life, and an orientation toward the delivery of evaluated research product quickly into the educational service domain.

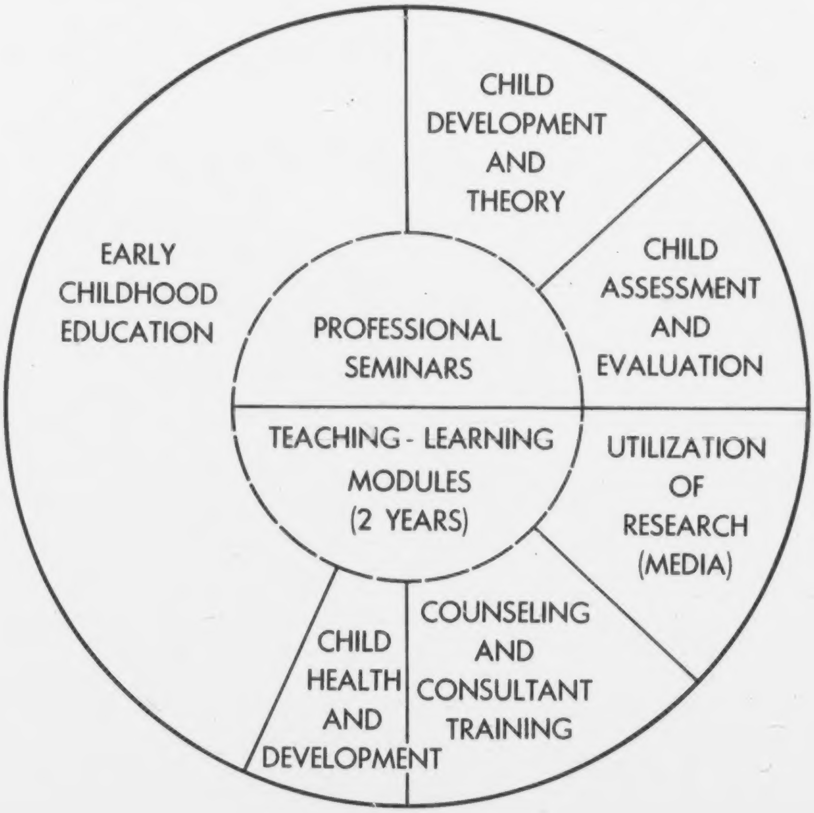
We need a new educator who can operate alone in a variety of family and community educating systems.

Figure 2 suggests a model for an early childhood education training program that would lead to an undergraduate degree or to a graduate degree at the masters level, depending on what portion of the total training program was accomplished by the individual. It is aimed at training individuals who would have maximum flexibility to fulfill the dipper, shuttler, and/or thrower functions.

COMPETENCY BASED CURRICULUM

☐ The objectives of the training program will be to produce a specialist who would be competent in child development theory and its application in educational settings (home, nursery, school, playground, neighborhood, day care center, specialized educational intervention program, etc.), methods of educating and training young children, methods of assessing children and converting assessment data into educational "treatment" prescriptions and daily educational strategies, utilization of educational research information, ability to apply knowledge and some treatment in the area of child health, childhood illness, and human growth and development from both the physical and the biobehavioral points of view, counseling parents and children, utilizing consultation and technical assistance, and assuming a place in the community where the educator is viewed as a person with special skills with children and families.

Figure 2. Model Training Program for Early Childhood Education


CHILD DEVELOPMENT AND THEORY
CHILD ASSESSMENT AND EVALUATION
UTILIZATION OF RESEARCH (MEDIA)
COUNSELING AND CONSULTANT TRAINING
CHILD HEALTH AND DEVELOPMENT
EARLY CHILDHOOD EDUCATION
PROFESSIONAL SEMINARS
TEACHING - LEARNING MODULES (2 YEARS)

TEACHING-LEARNING MODULES

☐ To meet these objectives the training program includes a core curriculum that would concentrate on the competencies listed above. There are also at least 2 full years of participation in teaching-learning experiences in the natural settings in which you find a variety of children, preferably service networks. These activities and experiences would take place in teaching-learning modules which include such emphases as family life, nursery programs, preschool programs, special education programs for preschool aged handicapped children, assessment techniques, research and development activities, instructional materials development, counseling and consultation activities, and regular early childhood education programs.

The training available from this program would provide a sufficient base from which a trainee could move into an early childhood education career in the classical sense or into one of the specialized technical assistance, consultation, research synthesizer, materials specialist, media specialist, program planning and evaluation specialist, child assessment specialist, information dissemination specialist, or other specialized roles. All of these would include the elements of the major functions of the dipper, the shuttler, and the thrower. It would also provide adequate knowledge and competency for him to move easily into a functioning delivery system. The trainee would be able to participate in the vertical and horizontal linkage development and movement within the system that would be necessary to overcome the current fragmentation of services and the lack of smooth relationships among our current research, training, and service components.

All of these would include the elements of the major functions of the dipper, the shuttler, and the thrower.

The ability to be trained simultaneously as an educator, a counselor, an applied researcher, a consultant, and a community program development and communications specialist offers a unique opportunity for trainees involved in such a program as well as for the systems they would populate when both they and the effective service delivery systems were available. Such a combination of communicating-synthesizing personnel and effective, integrated delivery system organization will indeed allow us to "get it all together."

Our greatest hopes for achieving this result lie in the current wave of consumerism, our renewed interest in delivering research products and doing research in the field, and, perhaps most importantly, in the social consciousness and practicality of today's aspiring child development specialist.

V. initiating and implementing change

implementing change: public involvement in planning for early childhood education in illinois

Need, persuasion, opportunity, and amelioration are the components of change which make it promising and prudent. The initiation of the change process can sometimes be the highest hurdle to surmount—and the one least creatively dealt with. How does one go about instigating change and channeling it in the right direction? How does one find the right direction?

Dr. David M. Jackson's presentation reveals the struggle involved in changing public education in Illinois, and in finding how and what to change. A unique series of public hearings in which the people of Illinois were asked to help their officials train their energies for change resulted in a positive outpouring of people so strong that the Office of Public Instruction could work with and learn from the people's suggestions and their "call to action." A film documenting this public effort was incorporated into Dr. Jackson's talk, a presentation which offers a model for other states in implementing educational change.

david m. jackson

COMPONENTS OF CHANGE

□ To act according to a plan, to listen to diversity, to gather consensus, to try a new course of action and make mistakes accordingly, and to move in the direction of suggested alternatives are all elements of social change. In Illinois, as in the rest of the nation, it has become increasingly apparent within the last 15 to 20 years that changes of a very basic nature are necessary in the institution of public education. Of more importance than the question of what changes should be made was the basic question of how to begin the process of change itself.

Of more importance than the question of what changes should be made was the basic question of how to begin the process of change itself.

How can real change be brought about within an institution as massive and unwieldly as our educational system? How can the inherent human resistance to change, both active and passive, be abated? Where and how do we initiate the process of improvement and change? These are some of the questions we as educators have raised when faced with the enormous problems of adapting our present system to the needs of the 70's.

An opportunity to begin this process seemed to present itself with the inauguration of a new State Superintendent of Public Instruction, Dr. Michael J. Bakalis, in January, 1970. With the institution of new leadership for the state education agency, an opportunity for a restructuring of the basic goals and priorities of education in Illinois appeared possible. The Superintendent and his staff realized that such a process could not take place without receiving input and opinions from a broad spectrum of the society of Illinois. As an idea to hold a public conference to discuss education began to take shape, the earliest concept included the idea that professional educators as well as students, parents, interest groups, and the general citizenry were expected to be involved. The broadest base that could be achieved was desired, for this was the only means by which it was felt that any resulting documents or courses of action would have substantiation for legitimacy.

The earliest concept included the idea that professional educators as well as students, parents, interest groups, and the general citizenry were expected to be involved.

FIVE STEPS OUTLINED

□ Early in the summer of 1971, a five step plan was formulated which would include the necessary steps from public involvement and input to the ultimate goal of active implementation.

Step 1

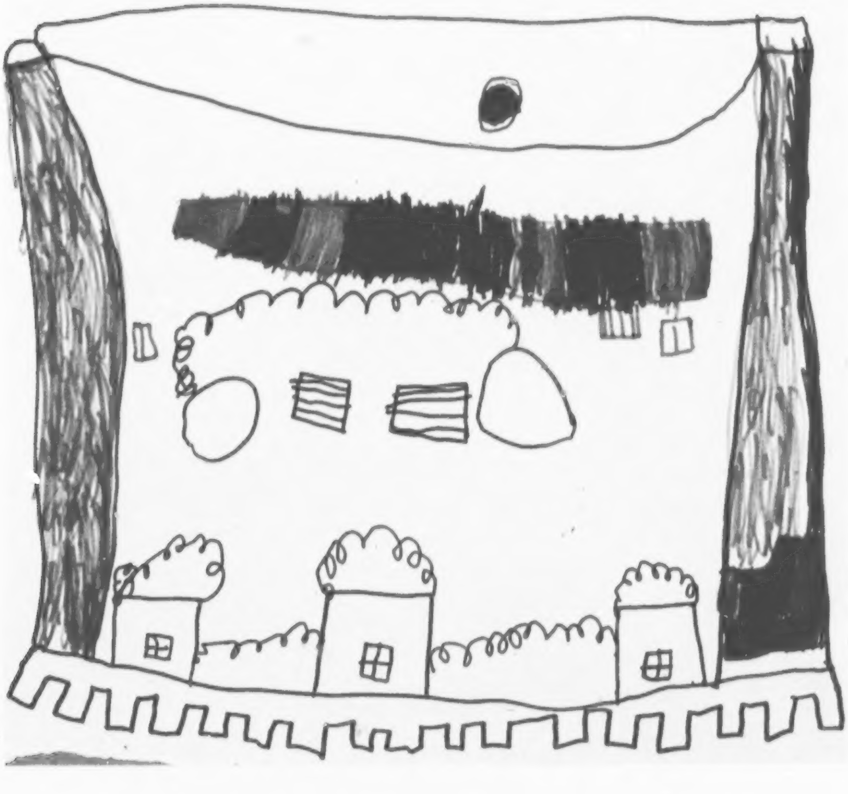
PUBLIC HEARINGS HELD

□ In order to receive input from a broad base of interested citizens, a series of six public hearings was held in scattered locations throughout the state (Rockford, Springfield, Peoria, Centralia, East St. Louis, and Chicago). Superintendent Bakalis and his five associate superintendents acted as the hearings officers. All interested persons who wanted to present testimony were invited to do so and to address themselves to whatever educational problem or problems they determined to be important.

The planned regional public hearings provided an excellent vehicle for soliciting input from a variety of publics regarding priority goals for education in the 1970s. Given an appropriate and specific structure, the regional public hearings could provide other state superintendents with grass roots beginnings to the ultimate identification of their own priority missions.

On June 14 a press release quoted Bakalis as saying:

> We in Illinois must have the courage to terminate outdated efforts and develop new ones. Our educational strategy is unclear at this date—we somehow exist from day to day—but to exist from day to day when the sum total of our knowledge doubles every ten years, is inadequate . . .
>
> . . . The public hearings on educational goals and priorities will serve to compile information about what the people of Illinois want their children to gain from a public education.
>
> The findings from the hearings will then be documented and set forth in a tentative plan to be presented to a statewide convention this fall, which will finalize the plan for presentation to the people of Illinois and those who govern their educational institutions.
>
> The statewide convention on educational goals and priorities will be composed of community leaders, working men and women, school administrators, parents, teachers and students.



> Can we say that our education system is adequate when there is a continued rise in the crime rate among our youth and when the welfare rolls are packed with persons who cannot find a job because they are unqualified?
>
> Can we say that education in Illinois is adequate when so many of our young people are unhappy in school and when most of our older citizens cannot return there?
>
> I believe the people in Illinois are becoming increasingly convinced that their schools are not working. These people have a right to expect a fair ratio of success and benefit from every dollar they spend.
>
> This right cannot be satisfied unless we have some understanding of where we want to go educationally in Illinois, and how we want to get there. This is why a plan is so vitally important, for without it we will be forced to continue to wander from crisis to crisis.

Each of the hearings was expected to draw participants from a wide geographical area, as well as a wide diversity of backgrounds. Representatives from schools and civic organizations, students, and parents were sought. A special effort was made to achieve minority group representation.

Regional and district superintendents were invited to participate in the hearings, and a comprehensive list was drawn up of the groups, organizations, and individuals who would receive notification prior to each of the six hearings. Participation by representatives of each of these groups and organizations was actively encouraged.

Less formal arrangements were made by phone which resulted in some of the more productive contacts. Phone books were used to locate civic groups, lodges, fraternal organizations, clubs, labor unions, and social service organizations. Often one person who was called suggested other possible participants.

As the date of the hearings approached, each site was visited and final arrangements were made. All scheduled witnesses were contacted by phone a second time. Film and audio tape records were planned to supplement the written records and notes of the entire proceedings.

CHARACTERISTICS OF THE HEARINGS

☐ Superintendent Bakalis and his associates were surprised and encouraged by the large numbers of persons who came to the hearings to present open, frank, and forthright opinions. Some witnesses came to indict the public school system in Illinois, and did so adamantly. Others offered constructive ideas about needed educational changes.

The panel found it necessary to divide into two groups in order to accommodate the unexpected numbers of witnesses.

In every hearing, the panel found it necessary to divide into two groups in order to accommodate the unexpected numbers of witnesses. In spite of the advance press coverage, many witnesses only learned of the sessions on the day of the hearing. Others came merely to listen. But after listening, in some cases for hours, they felt compelled to present informal testimony. All were accommodated. At the close of the six hearings, 641 persons had been heard.

Generally, witnesses presented between 5 to 15 minutes of testimony and then responded to questions from the hearing panel. Some of the most revealing concerns surfaced in these question and answer sessions. In fact, the schedule for each hearing fell far behind because of the lengthy question and answer sessions.

Substantive concerns dealt with the form education should take in the future.

Two categories of themes emerged during the hearings: procedural and substantive. Substantive concerns were those areas which dealt with the form education should take in the future. Generally, this type of testimony dealt with the more philosophical issues such as flexibility versus the return of the three Rs and the need for individualized instruction rather than the lock step patterns of traditional educational programs.

The procedural concerns involved efforts to support quality education, whatever form that education might take. Such issues as the financial support level, school organization, and the preparation, evaluation, and retention of teachers can be regarded as procedural concerns. These factors undergird and support the real substance of education. They do not, in and of themselves, provide clear directions for student centered goals for education in the 1970s.

Usually two distinct types of testimony were presented. Witnesses who addressed themselves to the substance of education seldom discussed procedural matters. Conversely, those who spoke of procedural matters did not discuss what the substance of education should be. For example, those who demanded a more humane educational system rarely advanced ideas as to how the financial and organizational structures should be designed to develop that more humanistic system. Those who discussed the need for a drastic increase in school financial aid did not concern themselves with the substantive outcomes of increased financial aid.

SUBSTANTIVE ISSUES

□ Examples of testimony which centered on the substantive issue of humanizing and opening the educational process are indicated below. The need for "turning kids on" to the education process through more humane and varied techniques in education was a prevailing theme throughout the hearings. The need for sensitive and child centered teachers was articulated by many, particularly by the student witnesses.

A spokesman for a group of concerned black citizens charged:

> Harassments by the teachers have led to the expulsion of many black students. Kickouts become dropouts; therefore, we are asking that laws be made to deal with the problems inside the school.

A minister urged greater sensitivity toward minority children:

> Teaching must be connected with the students' backgrounds. Our experiences with the culturally different—the blacks, the Puerto Ricans, the Mexican Americans—should have made the schools aware of this truth, but teachers and programs have continued to ignore this fact and to teach as they have always taught.

Impressive numbers of witnesses criticized present educational techniques and structures as barriers to developing favorable attitudes toward learning.

A kindergarten teacher said:

> I've worked with an early education class for the last couple of years and I have yet to see a child who didn't come to school excited and eager to learn. But all of us who have had children go through schools, all who have taught children, know that something happens to that eagerness and joy in learning by the time they reach the upper grades.

Accompanying the issue of humane and open educational practices was the repeated desire for adapting educational processes to individual needs. Experimentation and innovation were also encouraged, but a significant number of witnesses expressed ambivalence regarding innovations which have been attempted. They were unsure of their success and were skeptical about the seemingly excessive costs.

Prekindergarten education was seen by many witnesses as a necessary component in the development of individualized programs. For example, a teacher observed:

> We have seen what a difference programs like Head Start and Sesame Street can make for children, and now I think it is time the public schools take up the challenge of providing for every child the stimulation, educational surroundings, and guidance he needs to form a good foundation for learning. . . .

In addition, numerous witnesses cited the need for the State Office of Public Instruction to take a greater leadership role in advancing carefully planned and carefully evaluated methods for individualizing instruction from prekindergarten through adult education.

In Peoria, a professor of education advocated:

> After the hearings are completed . . . I would hope that priorities will be included which relate to daily instructional processes in the classroom. Among these . . . I strongly urge establishment of individualized instruction as a top priority at all levels in our public schools.

Finally, present curricular offerings were attacked as irrelevant to the noncollege bound student. The need for improved career education was advocated by a wide cross section of witnesses. The goal of training all students for the world of work was seen as a high priority issue. Career education was seen as a necessary ingredient of all educational programs, from elementary through adult education.

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Closely allied with the issue of humanistic education and curriculum revision, demands for an accountable educational system were consistently expressed. The public urged that teachers, administrators, and school boards assess their educational accomplishments and communicate more clearly these results.

Also included in the concern for making schools accountable was the desire to clarify the meaning of the term *quality education*. The movement toward measuring the products of the schools did not go without heed.

But the testimony made it clear that the public was demanding steps be taken to establish methods for gathering information about results produced by the schools.

No one suggested that accountability programs would be easy to establish. But the testimony made it clear that the public was demanding steps be taken to establish methods for gathering information about results produced by the schools. Time and again this demand was made. Witnesses feared that unless these steps were taken, the public's confidence in the schools would continue to weaken.

The most vociferous critics of education in Illinois were those affected by unequal educational opportunity: the poor, the minority groups, and the parents of exceptional children.

A witness at the Peoria hearing said:

> We are dragging our feet with regard to integration. . . . We are all losers when we deprive our children of the opportunity to grow up and learn in situations which afford maximum experience of the multicultural aspects of our society.

PROCEDURAL ISSUES

☐ The priority procedural issues discussed most frequently by witnesses centered around inadequate financing of the schools, school governance, and legal issues involving discipline and the rights of students, parents, and professional educators. Inadequate financing of the schools of the state was identified as a major barrier to equalizing educational opportunity. A common thread of testimony heard at all the hearings was the need for the state to assume the primary responsibility for financing schools.

A common thread of testimony heard was the need for the state to assume the primary responsibility.

Citizens from rural and urban areas cited inadequacies of the current financing structure. Numerous representatives of farmers' organizations in the Springfield, Peoria, and Centralia hearings revealed how the cost/price/tax squeeze affected their ability to support education. Urban representatives called for increased financing to meet their unique needs.

While there was overriding discontent with the current financial crisis, there was no consensus on the desirable sources of additional revenues. Suggestions varied from sole reliance upon increased income taxes to establishing a statewide lottery. In spite of this lack of consensus one demand was clear: the state must assume primary responsibility for financing schools.

A second major procedural concern was the need for opening the process of school governance. A nagging feeling of isolation from the educational decision-making process was expressed by a number of citizens. Witnesses from large cities said school boards were too remote to be receptive to community needs. Rural representation attacked the school boards as closed systems. Phrases such as "credibility gap" and "secret meetings" were repeated throughout the hearings. However expressed, the theme was clear: the desire to create a participatory and more open system of school governance.

The theme was clear: the desire to create a participatory and more open system of school governance.

Legal issues dealing with collective bargaining, professional and student rights, and discipline formed a third major procedural concern of the witnesses.

Calls for the State Office to take an aggressive role in developing statewide rules to govern collective bargaining were made at most of the hearings. There was widespread condemnation of the conflict adversary approach to collective bargaining in the educational arena. This approach was seen as an extremely divisive element which forced both parties into unintended actions.

While teacher tenure laws were generally criticized, educators emphasized the need to protect professionals through a system of due process. Recognition of student rights was seen as a critical element of any effective educational program. Protection of student rights by due process was urged by educators, students, and parents. Numerous court decisions were cited as a rationale.

Protection of student rights by due process was urged by educators, students, and parents.

Conflicting opinions regarding the law and discipline in the schools were voiced. In the Peoria hearing, administrators were highly critical of present legal provisions dealing with discipline matters. They sought revision in *The School Code of Illinois* to allow them to handle more effectively suspensions and expulsions. A counter theme was expressed by a number of representatives of minority groups, particularly blacks. They said that a disproportionate number of students expelled from schools are black. Other blacks identified irrelevant, meaningless curriculum as the root cause of discipline problems. By the completion of the six hearings it was clear that the discussion of the numerous issues had provided a call for basic educational reform in the state.

But the unique concept of holding hearings as a prelude to developing any written document was not without skeptics. Preceding the Springfield hearing the *Illinois State Register* voiced its reservations:

> Illinois' new superintendent of public instruction, Michael Bakalis, has set in motion an interesting and significant effort, the preparation of a master plan for educational goals and priorities for the state in this decade. . . .
>
> We applaud Bakalis for moving in this direction, but we seriously question if a master plan for elementary and

> secondary educational goals and priorities can be produced with a half-dozen hearings, two or three months of staff work, and a three-day convention of 1,000 citizens.

Step 2

A COMPILATION OF THE EXPRESSED CONCERNS INTO A DRAFT DOCUMENT

At the completion of the six public hearings, the next step was a compilation of the expressed concerns and opinions into a draft document of educational goals and priorities. Notes of the entire proceedings weighed 20 pounds. Compiling this material into workable form and then refining it into a cohesive program was a large task.

No one expected witnesses to present a detailed program of educational change from the podium. This was the job of the State Education Office, a job outlined by the priorities and concerns expressed in the hearings. The document thus generated would be subject to revision by later conferences.

Prior to the second hearing in Chicago the Superintendent, associate superintendents, the special assistant to the Superintendent, and other staff members discussed the outline for the conference document. A tentative plan said in part:

> . . . The product of the six regional public hearings will be a document which specifies priority goals for the statewide educational system for the 1970s. This document, specifying the priority goals, will be presented in advance to each of the participants of the Statewide Conference on Goals and Priorities to be held in Chicago.
>
> . . . The document will be divided into three major sections. The first section will contain a statement of what we are calling substantive goals. These substantive goals may be defined as follows: "A broad statement of long-range intentions. This statement should be child centered and is not necessarily time specific. Substantive goals deal with the desired eventual products of the educational effort."
>
> The second section of the document will contain statements of system goals. The system goals are defined as follows: "They define essential characteristics of the statewide educational system and its subsystems. Such characteristics are essential in accomplishing the substantive learner centered goals. The system goals are not time specific. They are merely characteristics which *must* be present in order to facilitate and nurture the accomplishment of the substantive goals."
>
> The third section of the document will deal with what is regarded as procedural objectives. Procedural objectives can be defined as follows: "must be supportive in accomplishing one or a combination of 'substantive' and 'system' goals; must be *time specific;* i.e., it must indicate a *specific time* by which the objective is to be accomplished; and, it must be *product specific;* i.e., it must indicate a *specific outcome.*"

Staff members were assigned to write portions of the draft in accordance with the suggested outline. By August 17, a rough draft of the document had been compiled and was presented at a meeting of the Superintendent and his associates. Reactions were solicited from associate and assistant superintendents, as well as from some department directors.

On August 28, the special assistant to the Superintendent and the director of planning, who were largely responsible for the compilation of the draft, met with members of the Citizens Advisory Council in Chicago. The purpose of the meeting was to elicit comments on the draft from persons outside the office. It also provided a "dry run" on what might be expected from discussion groups later in the conference.

By September 13, 1,500 copies of the 131 page document were printed and ready for distribution. Bearing the title *Action Goals for the 1970s,* it was generally referred to as the "first draft."

The draft was unique in that it was time specific. Unlike a large number of public reports, it did not call for reforms and changes at an unnamed future date, but attempted to place them within a time framework. Every action objective and most necessary steps contained a specific target date for accomplishment.

Simultaneous with the preparation of the document was the preparation of a film to be presented at the conference drawn from footage of the hearings. Entitled *A Call to Action,* the film ran approximately 25 minutes and served as a connecting link between the hearings and the conference itself.

Step 3

A CULMINATION OF THE FIRST TWO PROCESSES

☐ The next step was to be a culmination of the first two processes. In September, a 2½ day conference on educational goals and priorities was held. Invitations were issued and the public notified through a press release. Over 5,000 registration forms were mailed. Each person who indicated a desire to attend was mailed a copy of the draft document and supplemental materials.

Displays for the conference included a large multimedia presentation from the US Office of Education. Wilbur Cohen, Dean of the School of Education, University of Michigan, and former Secretary of Health, Education, and Welfare agreed to be the principal speaker at Saturday evening's banquet.

Because there was a registration fee for the conference as well as expenses for meals and lodging, there was concern that low income persons would not be able to attend. Major corporations helped defray the expenses of such participants.

It was determined that Saturday should be spent in small workshops which would review, discuss, and suggest changes in the draft document. A general session was held Sunday to summarize what had taken place in the workshops. Workshop moderators were drawn from the staff of the Office of the Superintendent of Public

Instruction. The moderators were instructed to remain neutral, keep the discussion moving, attempt to head off fruitless and petty arguments and, above all, make sure each participant was given sufficient opportunity to make his opinions known.

Recorders, most of them graduate education students, were recruited from Chicago area colleges and universities. Their function was to record the groups' comments, arguments, and questions, but not to participate in the discussion.

Staff members with specialized expertise, i.e., school finance and school law, functioned as resource personnel to be called upon by the groups as needed. The Superintendent assumed such a role.

Support personnel also were drawn from the office staff. The rest of the staff, however, were able to attend the conference only at their own expense. It was important to the Superintendent that the conference not be dominated by his own staff, however valuable a contribution they could make on an individual basis.

Participants were assigned to workshops in such a way as to maintain a balance within the groups. By design, each group was to include teachers, parents, students, businessmen, and group representatives. Individuals from the same school district or organization were placed in different workshops. No objections were noted to this procedure, and it provided an interesting and provocative mixture of discussions in each group. Over 1,000 persons met to discuss and further refine the draft document.

Step 4

PRODUCING A SECOND, REVISED DRAFT OF THE DOCUMENT

☐ From the reactions and suggestions of the conference participants emerged the next step of producing a second, revised draft of the document. There are considerable differences between the two documents and numerous questions were raised in every area. There are goals and action objectives in areas of equal educational opportunity, school governance, finance, curriculum, professional preparation and certification, pupil services, and student rights. For the sake of brevity, I am listing those objectives specifically relating to early childhood education or to the handicapped and gifted.

PREKINDERGARTEN EDUCATION

Action Objective 1:

BY 1973-74, A COOPERATIVE WORKING ARRANGEMENT AMONG INSTITUTIONS OF HIGHER EDUCATION, PARENT GROUPS, THE OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION, AND OTHER AGENCIES SHOULD BE IMPLEMENTED TO ESTABLISH ALTERNATE MODELS FOR PREKINDERGARTEN CURRICULUM AND PARENT EDUCATION PROGRAMS.

Action Objective 2:

COLLEGES, UNIVERSITIES, AND THE OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION WILL PROVIDE PRESERVICE

TRAINING AND INSERVICE RETRAINING OF TEACHERS AND AIDES FOR PREKINDERGARTEN PROGRAMS BY THE 1973-74 SCHOOL TERM.

Necessary Step:

Legislative appropriation for the development of prekindergarten training for teachers and aides by the 1973-74 school term.

Action Objective 3:

BY THE 1976-77 SCHOOL TERM, EVERY SCHOOL DISTRICT WILL PROVIDE A PREKINDERGARTEN PROGRAM FOR CHILDREN AGES THREE AND FOUR. ENROLLMENT IN SUCH PROGRAMS WILL NOT BE MANDATORY.

Necessary Steps:

1. Legislative appropriation for development of alternate experimental prekindergarten programs, including parent education and counseling programs, by the school term 1973-74.
2. Legislative revisions allowing use of state and local revenues for prekindergarten programs, including parent education and counseling programs, during the 1973-74 school term.
3. By 1974-75, programs should be developed and tested by universities, public schools, other agencies, and the Office of the Superintendent of Public Instruction.
4. Publication by the Office of the Superintendent of Public Instruction of alternate models for prekindergarten education by the 1975-76 school term.

SERVICES FOR EXCEPTIONAL CHILDREN

Action Objective 1:

BY 1973, A PORTION OF THE INSERVICE TRAINING PROGRAMS PROPOSED IN THE PROFESSIONAL RETRAINING SECTION OF THIS DOCUMENT (DEVOTED TO INSTRUCTIONAL OBJECTIVES AND PROGRAMS) WILL BE DEVOTED TO THE EDUCATIONAL PROBLEMS OF HANDICAPPED AND GIFTED CHILDREN.

Necessary Step:

Develop local plans for inservice training.

Action Objective 2:

BY THE 1974-75 SCHOOL YEAR, DEVELOP SERVICE TO HANDICAPPED AND GIFTED CHILDREN TO ASSURE EACH CHILD EDUCATIONAL PROGRAMMING APPROPRIATE TO HIS NEEDS.

Necessary Steps:

1. By 1973, revise Rules and Regulations for Special Education in cooperation with local public school personnel. Include specific penalties for various degrees of noncompliance.
2. Develop plans which detail cooperative efforts of public schools and all other agencies, including the medical community, to provide a continuum of services for the handicapped extending beyond the age of 21.

3. In cooperation with local public school personnel, develop, field test, revise, and implement an evaluation of the effectiveness of each special education program by the 1973-74 school year.
4. Complete cost studies of special education by 1973, and recommend legislation by 1974 to have the state support the actual excess cost of educating exceptional children.
5. Provide for adequate administrative organization of special education programs by 1974.
6. By 1974, unique programs which cannot be provided within local school programs such as those for the deaf, blind, and multiply handicapped will be delineated; and legislative provisions for regional educational cooperatives will be established to serve their needs.

Action Objective 3:

BY 1975, DEVELOP IMPROVED PROCEDURES AND TECHNIQUES FOR THE IDENTIFICATION, DIAGNOSIS, AND PRESCRIPTIVE TEACHING OF EXCEPTIONAL PREKINDERGARTEN CHILDREN.

Necessary Steps:

1. Establish an interagency planning council for early diagnosis and prescription.
2. Establish guidelines for development of educational diagnostic and prescription service centers by 1973.
3. Propose legislation to fund construction and staffing of regional diagnostic and prescription centers by 1973.
4. Determine procedures for screening, diagnosis, and prescriptive teaching of children with learning disabilities by 1973.
5. By 1974, outline procedures of information storage, retrieval, and dissemination for each child diagnosed. The purpose of such procedures should be maximization of quality services to each child.
6. Disseminate information to local school districts relative to role of the Office of the Superintendent of Public Instruction in educational diagnosis and prescriptive teaching of preschool children during 1972-75.
7. Disseminate diagnostic profiles of children tested to local school districts accompanied by an educational prescription for remediation of all identified learning disabilities by 1975.

Action Objective 4:

BY 1975, ALL PROFESSIONAL PREPARATION PROGRAMS WILL INCLUDE EXPERIENCES TO SENSITIZE THE PROSPECTIVE TEACHER TO THE EDUCATIONAL PROBLEMS OF ALL CHILDREN INCLUDING THOSE CLASSIFIED AS EXCEPTIONAL.

Necessary Steps:

1. All professional preparation programs will include course work and/or experiences which result in awareness and sensitivity to the needs of all handicapped, disadvantaged, and gifted children. Program revisions will be made by 1973.
2. All such special course work in Step No. 1 will emphasize identification and proper referral of children of an exceptional nature.
3. Teacher certification requirements will be revised by 1974.

Action Objective 5:

BY 1975, A MANDATORY PROGRAM OF PERIODIC TESTING AND EXAMINATION OF STUDENTS CLASSIFIED AS HANDICAPPED WILL BE INSTITUTED BY THE OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION IN COOPERATION WITH UNIVERSITIES AND LOCAL SCHOOL DISTRICTS.

Necessary Steps:

1. Appropriate tests will be developed or identified and disseminated by 1974.
2. A local school district screening or staffing committee will be established to schedule and administer examinations.

Action Objective 6:

BY 1976, TRAIN 5,000 PERSONS TO TEACH HANDICAPPED PRESCHOOL CHILDREN, STUDENTS WITH LEARNING DISABILITIES, SOCIAL AND/OR EMOTIONAL DISORDERS AND HEARING DISORDERS, AND STUDENTS DIAGNOSED AS MENTALLY RETARDED.

Necessary Steps:

1. Begin a recruitment program for special education teachers, including recruitment of candidates with handicapping conditions by 1972.
2. By 1972, scholarship programs for aspiring special educators, with highest priorities given to new teachers of the emotionally disturbed, the mentally retarded, students with learning disabilities, and preschool handicapped children.

Action Objective 7:

PARENTS WHOSE CHILDREN ARE RECOMMENDED FOR SPECIAL CLASSES FOR THE HANDICAPPED WILL HAVE ACCESS TO ALL INFORMATION PERTAINING TO SUCH RECOMMENDATIONS AND WILL BE GIVEN THE RIGHT TO A HEARING AND APPEAL.

Necessary Step:

Develop guidelines for appeal procedures which include methods which do not discriminate against the poor.

Step 5

DEVELOPMENT OF AN ACCOMPLISHMENT PLAN

☐ The task that now faces the Office of the Superintendent of Public Instruction in late 1972 is the development of an "accomplishment plan" for each of the action objectives. Implementation will begin in January, 1973.

Basically, each accomplishment plan will contain two parts: a description of the specific results of each Action Objective when achieved in the specific activities and steps needed to accomplish those results. The substance and wording of each Action Objective will remain unchanged. However, the necessary steps are subject to careful scrutiny and additional detail and specificity. In some cases, perhaps all the necessary steps will be deleted and replaced with more (productive) (beneficial) (feasible) alternatives.

Hopefully, the process of first developing, then implementing accomplishment plans will serve the purpose of translating these objectives into action and results.

A Call to Action is available through the Office of the Superintendent of Public Instruction, Springfield, Illinois, in two length versions. Both the one half hour film and the abridged 15 minute program are available free on loan.

the psychology of planned change

james j. gallagher

The creation of major preschool services for exceptional children —and for all children—throughout the nation will require major institutional changes. Dr. James J. Gallagher examines the complex process of change—including both the components necessary for change and the elements which resist and prohibit change. He describes the psychology of the professional and its influence on the change process.

How can desired change be implemented? Dr. Gallagher discusses one of the current instruments for change—technical assistance. He deals with some of the problems inherent in short term consultation and offers specifics for the type of assistance which can affect genuine change.

THE SEA OF CHANGE

☐ The establishment of quality preschool services for handicapped children is a clear priority for special education. Our knowledge of research in child development is consistent with that goal, as is our accumulated experiences in special education.

It is not enough for professionals to assure one another that institutional change is a good idea.

It is not enough, however, for the professionals to assure one another that it is a good idea. The establishment of such a program represents a substantial institutional change in our society and will have to traverse the various phases of development usually required of institutional change. Some of these are:

A persistent minority group can create major public action.

1. *Relevant Public Demand for Action.* There needs to be a clear demand for such change from a powerful and concerned segment of the public. It does not need to be a majority. A concerned minority group with a good cause (for example, the National Association for Retarded Children) can create major public action if they are strong and persistent in their requests.

Institutional changes in education or health care require some form of governmental action.

2. *Governmental Action.* Major institutional changes in education or health care almost inevitably require some form of governmental action at state or federal level. This may take the form of legislation authorizing the establishment of a new program, and almost certainly an increased budget to accompany such new programs. The executive arm of government then sets down the guidelines or parameters of the new program that must be observed at the local level.

Execution must be locally supported.

3. *Local Implementation.* Just as the demand must come originally from the local level, so the execution of the new program requires the effective utilization of the newly available resources.

While the problems involved in the first two phases are impressive, I would like to focus on the third phase, local implementation, upon which eventual program quality depends. In doing so, I also wish to discuss the psychology of the professional, a topic which greatly influences implementation, but is often ignored when educational change is discussed.

Technical assistance is not as easy as it looks.

A new and popular device for stimulating implementation and change is "technical assistance." The transfer of knowledge and skills from one person to another is certainly a legitimate way to institute change in education. However, I would like to point out some of the problems inherent in this process.

When I worked in the government a few years ago, it was my task to have a number of spirited interchanges with personnel from the Bureau of the Budget, now called the Office of Management and Budget. In the course of one of these interchanges, one of those irreverent economists that inhabited that organization said, "Let's face it. None of the things that you social engineers have tried to do has turned out very well." He proceeded to list Welfare, Head Start, Titles I and III of the Elementary and Secondary Education Act, school busing, etc.

We are immersed in a sea of change, yet clearcut changes in our society have been unanticipated spinoffs of various developments.

While I am inclined to believe that his judgment is too harsh and too early for the full evaluation of some of these efforts, it is worth thinking about. We are immersed in a sea of change, yet most of the clearcut changes that have taken place in our society have been the result of unanticipated spinoffs of various developments, technological and otherwise.

For example, our whole attitude toward the teen years changed with the advent of the automobile and the greater freedom of the adolescent that was a secondary result of that invention. The life style of top executives in various fields changed dramatically with the advent of quick and easy jet travel. We are still trying to chart out the influence that television has had in our society. These profound changes have affected the social institutions of family, church, and school, but no one deliberately set out to produce those particular changes. Changes in our social institutions have occurred or been greatly influenced by unanticipated, rather than deliberately planned, efforts to modify the behavior of human beings. It is a form of depersonalized change.

Unplanned efforts often result in depersonalized change.

CAUSES FOR RESISTANCE TO CHANGE

The change agent is not strong enough.

□ There are several possible contributing causes to the general resistance that seems to accompany deliberate social engineering efforts. The first of these is that the change agent selected for the intervention is often not terribly powerful. We tend to overemphasize the total impact of our own intervention agents within the framework of the social system we are attempting to modify. As a simple example, the average adult will have about 112 waking hours in a week. A minister is quite likely to oversell what a one hour sermon can do to that adult. Even if parents are seen by counselors an hour every day for 5 days a week, that still amounts to less than 5 percent of the total experience of those individuals during that week. When children are in school, they are together for 5 hours a day, 5 days a week. That is a much larger slice of the total time, about 25 percent. But there is still at least 75 percent of the time unaccounted for in terms of the change process. If the forces outside the treatment situation are strongly negative or counterproductive, then it may be that our efforts just don't have the power to produce the change that we desire. Another possibility is that our antiquated organizational systems are not capable of responding effectively to the public will. That was the theme of a previous article (Gallagher, 1970) and will not be developed here.

Our outdated systems are not capable of effective response.

Sociopsychological factors contribute to resistance.

Other possible reasons for the resistance to change are the rarely considered sociopsychological factors. For many years education has run a parallel and nonintersecting path with research and practice in psychodynamics and personality, without really being seriously influenced by the concepts or the consequences of the discoveries of the mental health disciplines. I would like to discuss a few of these consequences and make some suggestions as to how, in one specific project, we are trying to take them into account.

Whether a theoretical base lies in classic psychoanalytic concepts or neofreudian concepts or less sophisticated discussions of psychodynamics (Baldwin, 1968; Horney, 1945; Schachtel, 1959), there are certain fundamental assumptions that all of these personality formulations have. I will mention two key ones merely as examples of others that could have potential impact on social planning.

The first is that self-interest is the bedrock of personality! In the developmental sense we expect a child to be self-centered and selfish in his behavior. The whole thrust of civilizing young children is to help them to see that their long range self-interests involve their taking account of other persons' needs. The mature individual, having built on the rock of self-interest, has expanded his horizons to broader concerns and interests. When we refer to an adult neurotic, we often use such terms as self-centered, or taking everything with a personal reference, indicating his retreat to or fixation at an earlier developmental stage. Under stress, it is not uncommon for the adult to retreat to that self-interest, although it may be disguised to portray social acceptability.

Self-concept in adults tends to maintain itself and resist change.

The second major principle is that self-concept in adults tends to maintain itself and resist change. The tendency for many individuals to expend major psychic energy to defend their own perceived status and self-image is well recognized (Rogers, 1961). Resistance by the client in psychoanalysis is a major continuing topic among psychiatrists, and there is no reason to believe that attempts to modify the behavior or basic attitudes and values of persons in a normal community setting or in a school system would not suffer from the same basic tendency.

MASLOW'S PATTERNS OF LIFE STYLES

The defense life style rejects information which does not fit into the existing pattern.

□ Maslow (1959) has presented two classic patterns of personality dynamics or life styles, one of which he labeled *defense*, and the other *growth*. In the defense pattern the individual tends to protect and maintain the existing self-status and tends to reject or fight information which does not fit into the existing pattern. For example, the person will refuse to consider evidence of poor academic performance (i.e., poor grades) or social ability (i.e., divorce) or occupational problems (i.e., business failure) as a part of his own self. He or she will have elaborate reasons indicating why other factors (such as teacher, spouse, or government interference) were really responsible for the above problems. The opposite life style of growth reflects the pattern in which the individual accepts and builds on new information or accepts and incorporates contradictory information in order to change and grow into a broader and more self-consistent whole. It is this growth life style that is supposed to be the basis of creative experiences for the individual (Schachtel, 1959; Barron, 1963), but there is no escaping the general observation that, in most instances, the basic life style of defense explains a great deal of human behavior, particularly human behavior under stress. We rarely consider the possibility that new programs are initiated by persons with a growth life style, but must be implemented by many people with a defense life style.

The growth life style incorporates contradictory information . . . and is the basis for creative experiences.

Working solely from these two principles we can see why standard short term consultation, where outside educational experts come into a local situation, is doomed to less than outstanding success. The person who seeks help does not like to admit failure and may even have some substantial feelings of personal guilt about his inability to solve his own problems. This is as true in education as it is in social or family situations. We tend to dislike people who make us feel guilty. So when the outside expert comes into a school system or day care program to tell insiders how they can improve their own performance or behavior, he carries with him this burden; he automatically signifies failure or nonperformance to many persons. Many people with a defense life style pattern alleviate this conflict of implied failure by hoping subconsciously that the advisor or expert will fail in his task. If the consultant's advice turns out to be ineffective, then the individual who asked for help in the first place can say, "Well, no one can do anything about this situation. I have just proven it by having the best person in the field give me advice on it and it didn't work." He then is able to maintain his own self-image and self-respect without changing his behavior.

The outside expert automatically signals failure and evokes resistance.

He may even feel enhanced with a delicious feeling of martyrdom, having to face daily a situation that no one, not even the greatest minds of the world, can overcome. In special education the personal rewards are so great for being a martyr—"I don't see how you can stand to be with 'those kids' all day long" is a common reaction attesting to the courage of the special educator—that it is easy to see that the teacher might even resent someone who demonstrated that it wasn't so difficult to do something with these children after all. If these assumptions are correct, then it is rather foolish and naive to believe that the person who requests help will necessarily be delighted if help is efficiently delivered.

Thus an innovative program, a Title III Project or Title VI Project, introduced into a school system to revitalize the program from the standpoint of the superintendent, often finds itself in an atmosphere of passive resistance and hostility. The existing staff will not be

Newly introduced innovative programs often find themselves a resistive and hostile atmosphere.

overjoyed by someone proving that what they have attempted to do over a long period of time is really easy if you do it some other way. Thus, if the innovative ESEA Title III Project fails, after 3 years, to make a substantial dent in the problem which it is attempting to solve, it is quite possible that there are more people in the school system secretly smiling in self-interest than are made sad by such a failure.

When educational or child care issues are discussed in this framework of the emotional reactions of the professional, we often get rather passionate comments from some people who suggest that we are being too cynical, that teachers *should* have the interest of the children at heart and should ignore their own self-interest. Perhaps they should, but we are dealing here with the way human beings predominately respond, not the way some utopian form of human behavior devoted to a concept of the common good would function. Nor is this a counsel of pessimism, of complaint, of reaching the conclusion that everyone walks around in his own envelope of selfish self-interest and is not influenced by others or does not care about others. This is a realistic appraisal of behavior which can determine a different set of principles affecting the delivery of consultation or technical assistance in order to produce educational change. Let me suggest three major general principles upon which such operations ought to rest.

NEW PRINCIPLES FOR TECHNICAL ASSISTANCE

The person to be affected by change should have power in the situation.

☐ *Communication for change works best when the individual requesting change or who is expected to change has a major say in the nature of the change itself.* In other words, the person who is to be affected by change should be allowed to have power in the situation so that he determines what needs to be changed and under what circumstances. There can be an immediate protest that the individual doesn't know what really needs to be changed and will not move all of the way towards the necessary change that is clearly seen as required by an outside observer. The counter argument is that he will move only as far as he himself feels the need, and will tend to sabotage, or not accept, advice that exceeds the boundaries beyond which he is willing to move at a particular time. What is needed then, if one wants significant institutional or program change, is a continuing consultation arrangement whereby the individual who is to be affected by change, who is to be faced with the change situation, is allowed to move in small steps so that he can assimilate gradually the movement towards the larger goal.

The professional should talk in a language known and accepted by the consumer.

Communication for change works only when there is a common language between helper and helped. Thus the consultation of the speech correctionist or the school psychologist or the health consultant may run aground for lack of common conceptualization or common language with the teacher or with the parent. Some

deliberate attention has to be given to the communication level of the professional, so that he talks in a language that is known and accepted by the consumer. The rewards for such clear communication are not as great as we might imagine, because the professional sometimes believes that clear and concise language is at least suspiciously unprofessional. Professional jargon is also a not so subtle way of establishing one's superiority over the lay person.

The change should not be in conflict with the person's basic values.

Communication for change works best when the message does not contradict the basic values of the receiver. This principle is being supported by a growing body of literature (Hess & Shipman, 1965; White et al., 1966) regarding the very different parental styles that can be observed in families from different social classes. Attempts to modify those styles directly may touch on the bedrock of the value system that the person has become comfortable with. It is not just a matter of teaching the parent the techniques of rewarding the child every time he does something properly. Such a procedure may go against the grain of the parent who has grown up in a social environment where punishment has been the major or only acceptable force for behavior change.

In some social value systems, rewards or personal warmth are regarded as signs of weakness. If your own self-image is that of a tough, reliant person, then you may continue to use punishment to confirm that self-image. A simple attempt to get the parent to change a fundamental pattern of behavior such as this, which is linked to a total set of social values, is almost inevitably going to fail unless the parent or teacher is immersed in a total consultation of long term interaction which allows the individual to gradually, and in small steps, change the nonproductive, but comfortable, behavior.

THE TECHNICAL ASSISTANCE DEVELOPMENT SYSTEM

TADS provides continuing technical assistance to model preschool centers for handicapped children.

□ Viewing these three principles, it is fairly easy to see why the transient consultation relationships often found in education are almost inevitably bound to result in failure. At the Frank Porter Graham Child Development Center at the University of North Carolina we have developed a technical assistance program which has been influenced by these principles. The program, called TADS, which stands for Technical Assistance Development Systems, is designed to provide continuing technical assistance to the model preschool centers for handicapped children developed under the Handicapped Children's Early Education Assistance Act. The project director is Dr. David Lillie.

The 90 model centers throughout the country are designed to be model programs that illustrate what exciting things can be done for handicapped children at an early age. There is also an attempt to convince other agencies and persons to adopt similar programs in order to meet the goal of the Bureau of Education for the Handicapped that 75 percent of the preschool children will receive some kind of special service by 1977. In order to provide that service, we have devised what we think is a unique approach to technical assistance.

The first stage of the operation was to conduct a "needs analysis" of the program, center by center. We sent our own staff and our set of major advisors (15 key professionals from a variety of disciplines) to the model centers to have rather extensive conversations which allowed the center personnel to provide us with a detailed statement of what their particular needs were.

Center personnel provided us with a detailed statement of where they felt they needed the most help.

It had been argued that such a needs assessment would be a waste of time because there was adequate evidence already available from staff visits, progress reports, and site visit reports, to indicate what the major problem of each center might be. This, however, ignores the sociopsychological factors previously discussed. Therefore, we tried to communicate the concept that the individual center should have a degree of control over the nature of the helping relationships, and that they should define what it was they felt they needed.

In some cases, it was quite clear that the area in which the model centers were willing to receive help was not always the same area in which outsiders felt that help was needed. Even if the outsiders were correct, our knowledge of human change told us that the staff of the centers will move only in those areas where they themselves are ready to identify a need for assistance.

TADS deliberately attempts to individualize the helping program.

Another aspect of TADS is a deliberate attempt to individualize the helping program. In this case, we are trying to deal not with the totality of all centers, but with each center as individually as possible. We have arranged a series of modules of five or fewer centers with common interests as a basic training model (the centers decide if they wish to be a part of that model). Individual followups and consultation take place on the direct site of the center. What this means is that instead of being gathered together in a large 2 or 3 day conference with 40 or 50 persons in which their own individual needs and concerns can receive only transient consideration, they participate in a rather small and intimate training session of four or five center directors who can communicate with each other since they have similar programs or problems. Even this design, however, will not deal with the various communication principles that we have discussed before. A continuing followup consultation, over time, is the only way that we can hope to obtain major modifications and changes on the part of the center. We try to accomplish this objective by arranging for the center personnel to have continued experience with a sympathetic, involved, and knowledgeable consultant. We expect the local consultants to spend at least one day a month with the center personnel.

A followup consultation is the only way to obtain major modifications.

A contract is signed between the advisor and the center personnel,

so that it is quite clear what services the advisor is going to attempt to deliver. This contract, which we hope formalizes a personal relationship, is designed to deal with another potential emotional issue. As consultation relationships mature, our expectations as to what the relationship should provide often change. We tend to forget what the original purpose was for the consultation. Therefore, having a working contract from which to operate can ease the relationship between the counselor and client in addition to providing that kind of clearcut accountability that both the supporting agency and TADS wish to follow.

A working contract provides clearcut accountability and eases the relationship between counselor and client.

In short, what we are trying to do is to recognize that change through consultation occurs only if one respects the various principles of sociopsychological dynamics that have been learned so painfully in other fields. Fundamental to this relationship is a respect for the person who is going to receive the assistance. He is allowed to define his own problem. No help can really expect to succeed if the person himself is not first convinced that this is an area in which he wishes to receive assistance.

Second, the respect for the individual is reflected in the small group training sessions and the individual consultation arrangements with local agencies. There is another all too common factor of many consultation arrangements that has not been discussed here, but which lies within the framework of self-interest that we discussed above. We have to consider the motivation and interests of the person giving consultation and advice. One of the more destructive devices for enhancing one's own status and self-interest at the expense of others is described by present day youth as "putting someone down."

We have to consider the motivation of the person giving advice.

This is a very tempting thing to do in the consultation arrangement. We can always enhance our own self-status as experts by making others look inferior or more stupid or less capable than we are ourselves. This attitude of "tell the doctor what your problem is and he will straighten everything out" is a very destructive one and calculated not to succeed for the various reasons and principles that have already been stated. Consequently, we are trying to alert the local agents who give the consultation that they should avoid that approach, and should recognize that only by working within the framework offered by the person being helped can any consultation goals have a reasonable chance of success.

We have really just begun this technical assistance effort, and the needs analysis phase has been recently completed. We have set up our first small group meetings based on that needs analysis, and have tried to work individually with a variety of the centers to meet some specific needs they have. The only thing of which we are sure is that a constant vigil has to be kept on the socioemotional issues, because it is easy to slip into old patterns even though they have proven nonproductive in building successful human relationships.

These ideas are not new theoretically, but it is rather novel to put them into practice. Theodor Reik has written a book he entitled *Listening with the Third Ear.* He was encouraging counselors to thrust aside the semantic fog surrounding them and listen for the human feelings, for that disguised self-interest, for the unspoken cry for help. In providing technical assistance in education we need just that kind of sensitivity and the respect for the ultimate wisdom of the client that is second nature in much of the psychodynamic therapeutic efforts.

Technical assistance requires respect for the ultimate wisdom of the client.

In summary, we have tried to emphasize that major social or educational changes involve the life styles of many persons beyond those of the initiators of the planned change. The real challenge for us is in constructively involving all of these people in the decision for change, so that we will not call into play destructive, defensive actions that will make ashes of the bright hopes of the new program.

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HAND, HAND, FINGERS, THUMB
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